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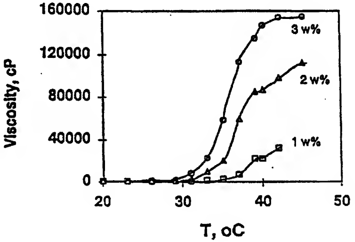
(57) Abstract

A cosmetic composition is described having a cosmetically acceptable carrier, comprising a reverse thermal viscosifying polymer network comprising at least one poloxamer component capable of aggregation in response to a change in temperature randomly bonded to at least one poly(acrylic acid) component; and a cosmetically active agent which imparts a preselected cosmetic effect, said carrier and said agent disposed within an aqueous-based medium.



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COMPOSITIONS FOR COSMETIC APPLICATIONS

This application is a continuation-in-part application of copending application U.S.S.N. 60/034,805 filed January 2, 1997, and entitled "Responsive Polymer Networks and Methods of Their Use", which is a continuation-in-part application of copending application PCT/US96/10376 filed June 14, 1996, designating the United States, and entitled "Responsive Polymer Networks and Methods of Their Use", which is a continuation-in-part application of copending application U.S.S.N. 08/580,986 filed January 3, 1996, and entitled "Responsive Polymer Networks and Methods of Their Use", each of which is incorporated entirely by reference.

Field of the Invention

The present invention relates to a cosmetic composition useful in a variety of topical and personal care products, including treatments of disorders and imperfections of the skin or other areas of the body. More particularly, the present invention is directed to a cosmetic composition comprising a poloxamer:poly(acrylic acid) polymer network that can be designed to reversibly gel over a wide range of conditions to provide a composition having a controllable range of viscosities, making it useful in a variety of cosmetic and personal care applications.

Background of the Invention

Many examples are known of cosmetic compositions intended for treatment of the skin or elsewhere on the body, where it is desired to have certain properties of viscosity. Hydrogels, such as cellulosics, have been included as thickeners in cosmetic compositions. A hydrogel is a polymer network which absorbs a large quantity of water without the polymer dissolving in water. The hydrophilic areas of the polymer chain absorb water and form a gel region. The extent of gelation depends upon the volume of the solution which the gel region occupies.

Reversibly gelling solutions are known in which the solution viscosity increases

and decreases with an increase and decrease in temperature, respectively. Such reversibly gelling systems are useful wherever it is desirable to handle a material in a fluid state, but performance is preferably in a gelled or more viscous state.

A known material with these properties is a thermal setting gel using block copolymer polyols, available commercially as Pluronic® polyols (BASF, Ludwigshafen, Germany), which is described in U.S. Patent No. 4,188,373. Adjusting the concentration of the polymer gives the desired liquid-gel transition. However, concentrations of the polyol polymer of at least 18-20 % by weight are needed to produce a composition which exhibits such a transition at commercially or physiologically useful temperatures. Also, solutions containing 18-20 % by weight of responsive polymer are typically very viscous even in the "liquid" phase, so that these solutions can not function under conditions where low viscosity, free-flowing is required prior to transition. In addition, these polymer concentrations are so high that the material itself may cause unfavorable interactions during use.

Another known system which is liquid at room temperature, but forms a semi-solid when warmed to about body temperature is formed from tetrafunctional block polymers of polyoxyethylene and polyoxypropylene condensed with ethylenediamine, commercially available as Tetronic® polyols. These compositions are formed from approximately 10% to 50% by weight of the polyol in an aqueous medium. See, U.S. Patent No. 5,252,318.

Joshi *et al.* in U.S. Patent No. 5,252,318 reports reversible gelling compositions which are made up of a physical blend of a pH-sensitive gelling polymer (such as a cross-linked poly(acrylic acid) and a temperature-sensitive gelling polymer (such as methyl cellulose or block copolymers of poly(ethylene glycol) and poly(propylene glycol)). In compositions including methylcellulose, 5- to 8-fold increases in viscosity are observed upon a simultaneous change in temperature and pH for very low methylcellulose levels (1-4% by weight). See, Figs. 1 and 2 of Joshi *et al.* In compositions including Pluronic® and Tetronic® polyols, commercially available forms of poly(ethylene glycol)/poly(propylene glycol) block copolymers, significant increases in viscosity (5- to 8-fold) upon a simultaneous change in temperature and pH

are observed only at much higher polymer levels. See, Figs. 3-6 of Joshi *et al.*

Hoffman *et al.* in WO 95/24430 disclose block and graft copolymers comprising a pH-sensitive polymer component and a temperature-sensitive polymer component. The block and graft copolymers are well-ordered and contain regularly repeating units of the pH-sensitive and temperature-sensitive polymer components. The copolymers are described as having a lower critical solution temperature (LCST), at which both solution-to-gel transition and precipitation phase transition occur. Thus, the transition to a gel is accompanied by the clouding and opacification of the solution. Light transmission is reduced, which may be undesirable in many applications, where the aesthetic characteristics of the composition are of some concern.

Thus, the known systems which exhibit reversible gelation are limited in that they require large solids content and/or in that the increase in viscosity less than 10-fold. In addition, some known systems exhibit an increase in viscosity which is accompanied with the undesirable opacification of the composite.

Summary of the Invention

It is an object of the present invention to provide a cosmetic composition which is includes a component capable of reversible gelation or viscosification.

It is a further object of the invention to provide a cosmetic composition which includes an ingredient capable of gelation or viscosification at very low solids content.

It is another object of the present invention to provide a cosmetic composition which possesses improved flow and gelation characteristics as compared to properties possessed by conventional reversible gelation compositions.

It is a further object of the invention to provide a polymer network composition for use in cosmetic compositions useful as a surfactant or emulsifier in the solubilization of additives and, in particular, hydrophobic additives.

It is a further object of the invention to provide a cosmetic composition which possesses the appropriate thickness, emolliency and cosmetic effect with a minimum of solids content.

It is a further object of the invention to provide a polymer network for use in

cosmetic compositions useful as a suspending agent for otherwise insoluble additives.

It is yet a further object of the present invention to provide a composition capable of solubilizing emulsions at elevated temperatures.

It is yet a further object of the invention to provide new and useful cosmetic compositions incorporating the reversibly gelling polymer network composition of the present invention, which take advantage of its unique advantageous properties.

It is yet another object of the present invention to provide reversibly gelling polymer network compositions which are composed of biocompatible polymers.

These and other objects of the invention are achieved with a cosmetic composition which incorporates a poloxamer:poly(acrylic acid) polymer network as a cosmetically acceptable carrier. The polymer network comprises a poloxamer component randomly bonded to a poly(acrylic acid), or PAA, component in an aqueous-based medium, the polymer network being capable of aggregating in response to an increase in temperature. The reverse thermal viscosifying poloxamer:poly(acrylic acid) polymer network includes random covalent bonding between the poly(acrylic acid) component and the poloxamer component of the network. The polymer network may also include some unbound or "free" poloxamer or other additives which contribute to or modify the characteristic properties of the polymer composition.

In addition, the cosmetic composition includes a cosmetic agent selected to provide a preselected cosmetic effect. By "cosmetic agent", as that term is used herein, it is meant that the additive imparts a cosmetic effect. A cosmetic effect is distinguishable from a pharmaceutical effect in that a cosmetic effect relates to the promoting bodily attractiveness or masking the physical manifestations of a disorder or disease. In contrast, a pharmaceutic seeks to treat the source or symptom of a disease or physical disorder. It is noted however, that the same additives may have either a cosmetic or pharmaceutical effect, depending upon the amounts used and the manner of administration.

By "cosmetic" as that term is used herein, it is meant the cosmetic and

personal-care applications intended to promote bodily attractiveness or to cover or mask the physical manifestations of a disorder or disease. Cosmetics include those products subject to regulation under the FDA cosmetic guidelines, as well as sunscreen products, acne products, skin protectant products, anti-dandruff products, and deodorant and antiperspirant products.

By "gelation" or viscosification, as that term is used herein, it is meant a drastic increase in the viscosity of the polymer network solution. Gelation is dependent on the initial viscosity of the solution, but typically a viscosity increase in the range of preferably 2- to 100-fold, and preferably 5- to 50-fold, and more preferably 10- to 20-fold is observed in the polymer network which is used in the preparation of the cosmetic compositions of the invention. Such effects are observed in a simple polymer network solution and the effect may be modified by the presence of other components in the cosmetic composition.

By "reversibly gelling" as that term is used herein, it is meant that the process of gelation takes place upon an *increase* in temperature rather than a decrease in temperature. This is counter-intuitive, since it is generally known that solution viscosity *decreases* with an increase in temperature.

As used herein, "poloxamer" is a triblock copolymer derived from poly(ethylene glycol)-poly(propylene glycol)-poly(ethylene glycol) blocks. The poloxamer is capable of responding to a change in temperature by altering its degree of association and/or agglomeration. The aggregation may be in the form of micelle formation, precipitation, labile crosslinking or other factors. The poloxamer has the general formula of a triad ABA block copolymer, $(P_1)_a(P_2)_b(P_1)_a$ where P_1 = poly(ethylene glycol) and P_2 = poly(propylene glycol) blocks, where a is in the range of 10-50 and where b is in the range of 50-70.

The poly(acrylic acid) component includes poly(acrylic acid) and its salts. The poly(acrylic acid) supports and interacts with the poloxamer component so that a multi-material, responsive polymer network is formed. The interaction of the poloxamer and poly(acrylic acid) exhibits a synergistic effect, which magnifies the effect of the poloxamer component in viscosifying and/or gelling the solution.

The novel interaction between the constituent polymers components of the polymer network permits formation of gels at very low solids content. Gelation and/or viscosification is observed in aqueous solutions having about 0.01 to 20 wt% of the poloxamer component and about 0.01 to 20 wt% of the poly(acrylic acid) component. A typical reversibly gelling polymer network may be comprised of less than about 4 wt% of total polymer solids (e.g., poloxamer and poly(acrylic acid))and even less than 1wt% total polymer solids while still exhibiting reverse thermal viscosification. Of course, the total solids content including additives of a reversibly gelling polymer network composition may be much higher. The viscosity of the gel increases at least ten-fold with an increase in temperature of about 5°C at pH 7 and 1 wt% polymer. Viscosity increases may be even greater over a larger temperature range at pH 7 and 1% polymer network content.

The relative proportion of poloxamer and poly(acrylic acid) may vary dependent upon the desired properties of the polymer composition. In one embodiment. the poloxamer is present in a range of about 1 to 20 wt% and the poly(acrylic acid) is present in a range about of 99 to 80 wt%. In another embodiment. the poloxamer component is present in a range of about 21 to 40 wt% and the poly(acrylic acid) component is present in a range of about 79 to 60 wt%. In another embodiment. the poloxamer component is present in a range of about 41 to 50 wt% and the poly(acrylic acid) component is present in a range of about 59 to 50 wt%. In another embodiment, the poloxamer component is present in a range of about 51 to 60 wt% and the poly(acrylic acid) component is present in a range of about 49 to 40 wt%. In yet another embodiment, the poloxamer component is present in a range of about 61 to 90 wt% and the poly(acrylic acid) component is present in a range of about 39 to 20 wt%. In another embodiment, the poloxamer component is present in a range of about 81 to 99 wt% and the poly(acrylic acid) component is present in a range of about 19 to 1 wt%.

The poloxamer:poly(acrylic acid) polymer network described above is included in a cosmetic composition to improve the flow characteristics, thickness and other properties of the composition. The composition includes additional cosmetic agents.

such as are needed for the cosmetic purpose of the composition. Additives also may be included to modify the polymer network performance, such as to increase or decrease the temperature of the liquid-to-gel transition and/or to increase or decrease the viscosity of the responsive polymer composition.

In one aspect of the invention, the poloxamer:poly(acrylic acid) polymer network is incorporated into a cosmetic compositions to impart thickening properties to the cosmetic composition at the use and/or application temperature. Such thickening properties include enhanced overall viscosity, as well as a desirable viscosity response with temperature. The polymer network may be useful as a thickener in pH ranges where other thickeners are not effective.

In another aspect of the invention. the poloxamer:poly(acrylic acid) polymer network is incorporated into a cosmetic composition to stabilize and solubilize hydrophobic agents in the cosmetic composition. The polymer network may be included to increase emulsion stability. Many emulsions. i.e.. suspension of small droplets or particles of a first material in a second material. lose viscosity upon heating. As will be demonstrated herein. the poloxamer:poly(acrylic acid) polymer network retains its emulsifying properties even with temperature increase.

In addition, it may be included in the composition to impart emolliency to the composition. The composition may also act as a film-forming agent after it has been applied to the skin. This film-forming agent may be used as a barrier to prevent water loss from the skin which contributes to the moisturization of the skin.

In another aspect of the invention. the poloxamer:poly(acrylic acid) polymer network may be included as an additive in cosmetic applications to prevent viscosity loss at elevated temperatures.

Brief Description of the Drawing

The invention is described with reference to the Drawing, which is presented for the purpose of illustration and is in no way intended to be limiting, and in which:

Figure 1 is a graph of viscosity vs. temperature for a 1 wt%, 2 wt% and 3 wt% responsive polymer network aqueous composition of a poloxamer/poly(acrylic acid)

(1:1) at pH 7.0 measured at a shear rate of 0.44 sec^{-1};

Figure 2 is a graph of viscosity vs. temperature for a 1 wt% poloxamer: poly(acrylic acid) polymer network composition demonstrating reversibility of the viscosity response;

Figure 3 shows the viscosity response of a 2 wt% poloxamer:poly(acrylic acid) polymer composition at various shear rates;

Figure 4 shows a viscosity response curve for a 2 wt% poloxamer: poly(acrylic acid) polymer network composition prepared with nominal mixing and stirring and prepared using high shear homogenization (8000 rpm, 30 min);

Figure 5 is a graph of viscosity vs. temperature for a 1 wt% poloxamer: poly(acrylic acid) polymer network composition at various pHs:

Figure 6 is a graph of viscosity vs. temperature for a 1 wt% poloxamer: poly(acrylic acid) polymer network composition with and without addition of 0.25 wt% KCl;

Figure 7 is a graph of viscosity vs. temperature for a 1 wt% poloxamer: poly(acrylic acid) polymer network composition with and without addition of 0.5 wt% acetamide MEA;

Figure 8 is a graph of viscosity vs. temperature for a 1 wt% poloxamer: poly(acrylic acid) polymer network composition without and with 5 wt%. 10 wt% and 20 wt% added ethanol, respectively;

Figure 9 is an illustration of a reversibly gelling polymer network used as an emulsifier and stabilizer for a hydrophobic agent;

Figure 10 is a schematic illustration of the poloxamer:poly(acrylic acid) polymer network below and above the transition temperature illustrating the aggregation of the hydrophobic poloxamer regions;

Figure 11 is a graph of viscosity vs. pH for a 1 wt% responsive polymer network aqueous composition of a poloxamer/poly(acrylic acid) (1:1) measured at a shear rate of 0.44 sec^{-1};

Figure 12 is a plot of viscosity vs. temperature for (a) a 1 wt% responsive polymer network aqueous composition of Pluronic® F127 poloxamer/poly(acrylic acid)

(1:1) and (b) a 1 wt% physical blend of Pluronic® F127 poloxamer/poly(acrylic acid) (1:1) at pH 7.0 measured at a shear rate 0.22 sec^{-1};

Figure 13 is a plot of viscosity vs. temperature for a 1 wt% responsive polymer network aqueous composition of Pluronic® F88 poloxamer/poly(acrylic acid) (1:1) at pH 7.0 measured at a shear rate 2.64 sec^{-1};

Figure 14 is a graph of the viscosity vs. temperature effect for a responsive polymer network composition of 2 wt% Pluronic® P104 poloxamer/poly(acrylic acid) (1:1) in deionized water at pH 7.0 measured at shear rate of 22 sec^{-1};

Figure 15 is plot of viscosity vs. temperature for a responsive polymer network composition of 2 wt% Pluronic® F123 poloxamer/poly(acrylic acid) (1:1) at pH 7.0 measured at a shear rate of 22 sec^{-1};

Figure 16 is a plot of viscosity vs. temperature for 1 wt% made of series of poloxamers and poly(acrylic acid) (1:1) in deionized water at a shear rate of 132 sec^{-1};

Figure 17 is a plot showing release of hemoglobin from a poloxamer/poly(acrylic acid) polymer network of the invention;

Figure 18 is a plot showing the release of lysozyme from the poloxamer/poly(acrylic acid) polymer complex of the invention;

Figure 19 is a plot showing release of insulin from a poloxamer/poly(acrylic acid) polymer network composition of the invention;

Figure 20 is a plot of viscosity vs. temperature for a poloxamer/poly(acrylic acid) polymer network composition (a) before and (b) after sterilization by autoclave;

Figure 21 is a plot of viscosity vs. temperature for an oil-free moisturizing formulation prepared from (a) a responsive polymer network composition of the invention and (b) a conventional oil-in-water formulation;

Figure 22 is a plot of equilibrium solubility of estradiol (A, B) and progesterone (C, D) in aqueous solutions (pH 7) of Pluronic® F127 (A, C) and responsive polymer network (B, D) vs. temperature;

Figure 23 is a plot of the ratio of equilibrium solubilities of estradiol in responsive polymer network and water vs. polymer concentration in the responsive polymer network solutions;

Figure 24 is a plot of the effect of loading fluorescein on the onset of gelation of responsive polymer network vs. total polymer concentration in responsive polymer network solution (pH 7.0);

Figure 25 is a plot of the percentage of a) estradiol and b) progesterone release from responsive polymer network vs. time;

Figure 26 is a plot of the rate of progesterone release and macroscopic viscosity vs. polymer concentration;

Figure 27 is a plot of the percentage of progesterone release vs. polymer concentration in responsive polymer network and,

Figure 28 is a plot of the relative diffusivity of poly(styrene) latex particles in water and responsive polymer network.

Detailed Description of the Invention

The present invention is directed to a cosmetic composition comprising a cosmetically acceptable carrier comprising a novel poloxamer:poly(acrylic acid) polymer network. The polymer network functions as a temperature sensitive thickening agent, and in addition possesses surfactant and emulsifying capabilities which may be beneficial to the cosmetic composition. The polymer network composition according to the invention includes a poloxamer component randomly bonded to a poly(acrylic acid) component. The two polymer components may interact with one another on a molecular level. The polymer network contains about 0.01-20 wt% each of poloxamer and poly(acrylic acid). Exemplary polymer network compositions range from about 1:10 to about 10:1 poloxamer:poly(acrylic acid). Polymer network gel compositions which exhibit a reversible gelation at body temperature (25-40°C) and/or at physiological pH (ca. pH 3.0-9.0) and even in basic environments up to pH 13 (hair care) are particularly preferred for cosmetic applications.

In one embodiment of the invention, a 1:1 poloxamer:poly(acrylic acid) polymer network at appropriate pH exhibits flow properties of a liquid at about room temperature, yet rapidly thickens into a gel consistency of at least about five times

greater, preferably at least about 10 times greater, and even more preferably at least about 30 times and up to 100 times greater, viscosity upon increase in temperature of about 10 °C and preferably about 5 °C. The reversibly gelling polymer network of the present invention exhibit gelation even at very low polymer concentrations. For example, polymer network compositions at pH 7 comprising about 0.5 wt% poloxamer component and about 0.5 wt% PAA exhibits a significant increase in viscosity from a free-flowing liquid (50 cps) to a gel (6000 cps). The observed gelation takes place at low solids contents, such as less than 20 wt% or preferably less than about 10 wt%, or more preferably less than about 2.5 wt% or most preferably less than about 0.1 wt%. Thus, only a small amount by weight of the polymer network need be incorporated into a cosmetic composition in order to provide the desired thickening or viscosifying effect.

The reverse viscosification effect at low polymer concentrations provides clear, colorless gels which are particularly well-suited to cosmetic applications. For example, very little residue is formed upon dehydration which may be important in some applications, such as in topically applied cosmetics. An additional advantage of the polymer network of the invention is that it remains clear and translucent above and below the critical temperature or pH. These characteristics of the reversibly gelling polymer network make it well suited for use in cosmetic compositions.

The polymer network of the present invention technology may be added to cosmetic formulations to increase the thickness and viscosity of the composition. The poloxamer:poly(acrylic acid) polymer network possesses hydrophobic regions capable of aggregation. Unlike conventional thickeners, the aggregation of the polymer network of the present invention is temperature sensitive. Thus, the inventive polymer network of the present invention may have a transition temperature (i.e. temperature of aggregation) above room temperature so that the cosmetic composition is of low viscosity at or below room temperature and is of high viscosity at or around body temperature (body temperature includes both surface and internal body temperature). Thus, a composition may be prepared at low temperatures while the polymer network is in a low viscosity state. Mixing of ingredients under low viscosity is expected to be

easier, thus simplifying the manufacturing process. Yet, the resultant mixture would be of increased viscosity at use temperatures. As a further advantage, a cosmetic composition comprising poloxamer:poly(acrylic acid) polymer network may be spread thinly to allow for even application, due to its low viscosity at room temperature, but will thicken and "fill" the skin contours upon warming up to body surface temperature.

In another aspect of the invention, the composition may be applied through a nozzle that provides high shear to reduce viscosity, yet the composition regains its viscosity after application to the skin. This contrasts with conventional formulations which permanently lose viscosity after being subjected to high shear.

In another aspect of the invention, the composition may be formulated and applied as a liquid, spray, semi-solid gel, cream, ointment, lotion, stick, roll-on formulation, mousse, pad-applied formulation, and film-forming formulation.

The poloxamer:poly(acrylic acid) polymer network may also be included in a cosmetic composition for use as a stabilizing, solubilizing or emulsifying agent for a hydrophobic component of the cosmetic formulation. The strong hydrophilic regions of the poloxamer resulting from aggregation and micelle formation create hydrophobic domains which may be used to solubilize and control release of hydrophobic agents. Similar micelle-based systems have been shown to protect trapped peptides against enzymatic degradation from surface enzymes.

The reversibly gelling polymer network of the present invention is a unique polymer composition designed to abruptly change its physical characteristics or the characteristics and properties of materials mixed therewith with a change in temperature. Without intending to be bound by any particular mechanism or chemical structure, it is believed that the structure of the polymer network involves a random bonding of the poloxamer onto the backbone of the poly(acrylic acid). A portion of the poloxamer which is present during the polymerization reaction which forms the poly(acrylic acid) is bonded to the backbone of the forming poly(acrylic acid) through hydrogen abstraction and subsequent reaction. See detailed discussion of the mechanism, below. The combination of the poly(acrylic acid) and randomly bonded poloxamer gives the composition its unique properties. Any free poloxamer remaining

after polymerization of PAA remains associated with the random co-polymer, resulting in a miscible composition. Free poloxamer may also be present in the polymer network composition; however, its presence is not required in order to observe reverse thermal viscosification.

The poly(acrylic acid) may be linear, branched and/or crosslinked. Poly(acrylic acid) is capable of ionization with a change in pH of the solution. By ionization, as that term is used with respect to poly(acrylic acid), it is meant the formation of the conjugate base of the acrylic acid, namely acrylate. As used herein, poly(acrylic acid) includes both ionized and non-ionized versions of the polymer. Changes in ionic strength may be accomplished by a change in pH or by a change in salt concentration. The viscosifying effect of the polymer network is partly a function of the ionization of the poly(acrylic acid); however, reverse thermal gelling may occur without ionization. Changes to the ionic state of the polymer causes the polymer to experience attractive (collapsing) or repulsive (expanding) forces. Where there is no need or desire for the composition to be applied in a high viscosity state. it may be possible to prepare the composition as non-ionized poly(acrylic acid). The body's natural buffering ability will adjust the pH of the applied composition to ionize the poly(acrylic acid) and thereby develop its characteristic viscosity.

The poloxamer possesses regions of hydrophobic character. e.g., poly(propylene glycol) blocks. and hydrophilic character, e.g., poly(ethylene glycol) blocks. The poloxamer may be linear or branched. Suitable poloxamers include triad block copolymers of poly(ethylene glycol) and poly(propylene glycol) having the general formula $(P_1)_a(P_2)_b(P_1)_a$, where P_1 = poly(ethylene glycol) and P_2 = poly(propylene glycol) blocks, where a is in the range of 10-50 and where b is in the range of 50-70, where poly(propylene glycol) represents the hydrophobic portion of the polymer and poly(ethylene glycol) represents the hydrophilic portion of the polymer. Pluronic® polymers (BASF) are commercially available for *a* in the range of 16 to 48 and *b* ranging from 54-62. One or more poloxamers may be used in the reversibly gelling polymer network composition of the present invention.

The reversibly gelling responsive polymer networks compositions of the present

invention are highly stable and do not exhibit any phase separation upon standing or upon repeated cycling between a liquid and a gel state. Samples have stood at room temperature for more than three months without any noticeable decomposition, clouding, phase separation or degradation of gelation properties. This is in direct contrast to polymer blends and aqueous mixed polymer solutions, where phase stability and phase separation is a problem, particularly where the constituent polymers are immiscible in one another.

An example of the dramatic increase in viscosity and of the gelation of the reversibly gelling polymer network compositions of the invention is shown in Figure 1. Figure 1 is a graph of viscosity vs. temperature for 1 wt%, 2 wt% and 3 wt% polymer network compositions comprising 1:1 poloxamer:poly(acrylic acid), hydrated and neutralized. The viscosity measurements were taken on a Brookfield viscometer at a shear rate of 0.44 sec^{-1} at pH 7.0. All solutions had an initial viscosity of about 1080 cP and exhibited a dramatic increase in viscosity to gel point at about 35°C. This is not typical of all polymer network compositions since polymerization condition will affect initial viscosity. Final viscosities were approximately 33,000 cP, 100,000 cP and 155,000 cP for the 1 wt%, 2 wt% and 3 wt% compositions, respectively. This represents viscosity increases of about 30-, 90- and 140-fold, respectively. This effect is entirely reversible. Upon cooling, the composition regains its initial viscosity. This is demonstrated in Figure 2, where a 1 wt% poloxamer:poly(acrylic acid) composition is warmed through the transition temperature up to 35 °C (simple curve), cooled to room temperature (24 °C, ticked curve) and then warmed again to up above the transition temperature (open box curve). The viscosity response was virtually identical in all three instances.

As would be expected with a non-Newtonian system, the solution viscosity differs with different shear rates. Figure 3 shows the viscosity response of a 2 wt% poloxamer:poly(acrylic acid) polymer composition at various shear rates. The viscosity response is consistent between 24 °C and 34 °C; however, the final viscosity is reduced with increasing shear rate.

However, unlike many prior art hydrogels, e.g., carbomers, the

poloxamer:poly(acrylic acid) polymer network composition does not permanently loose viscosity after being subjected to high shear conditions. The poloxamer:poly(acrylic acid) polymer network composition remains unaffected by such shear conditions as homogenization. Figure 4 compares the viscosity response curve of a 2 wt% poloxamer:poly(acrylic acid) polymer composition prepared with nominal mixing (simple lime) and stirring with that of a polymer composition of similar composition prepared using high shear homogenization designated by a ticked line (8000 rpm, 30 min). No significant decrease in viscosity is observed.

A number of factors influence the viscosity and transition temperature of the composition. The more important factors include polymer concentration, pH and presence and nature of additives.

The effect of pH on the viscosity of reversibly gelling polymer networks is shown in Figure 5. Increasing pH from the starting pH has a lesser effect on the viscosity than decreasing the pH. This may relate to the extent of ionization of the poly(acrylic acid) component of the polymer network as discussed above. This may be clearly seen in Figure 5 when comparing the viscosity response of a 1 wt% poloxamer:poly(acrylic acid) polymer composition at pH 5 and pH 11. Satisfactory viscosities can be obtained at high pHs indicating the potential value of the reversibly gelling polymer network in products such as depilatories, hair straighteners and hair relaxers.

The responsive polymer network may also include additives for influencing the performance of the polymer composition, such as the transition temperature and the viscosity of the polymer composition above the transition temperature. The following list is not intended to be exhaustive but rather illustrative of the broad variety of additives which can be used.

These materials include solvents (e.g., 2-propanol, ethanol, acetone, 1,2-pyrrolidinone, N-methylpyrrolidinone), salts (e.g., calcium chloride, sodium chloride, potassium chloride, sodium or potassium phosphates, borate buffers, sodium citrate), preservatives (benzalkonium chloride, phenoxyethanol, sodium hydroxymethylglycinate, ethylparaben, benzoyl alcohol, methylparaben, propylparaben,

butylparaben, Germaben II), humectant/moisturizers (acetamide MEA, lactimide MEA, hydrolyzed collagen, mannitol, panthenol, glycerin), lubricants (hyaluronic acid, mineral oil, PEG-60-lanolin, PPG-12-PEG-50-lanolin, PPG-2 myristyl ether propionate) and surfactants.

Surfactants may be divided into three classes: cationic, anionic, and nonionics. An example of a cationic surfactant used is ricinoleamidopropyl ethyldimonium ethosulfate (Lipoquat R). Anionic surfactants include sodium dodecyl sulfate and ether sulfates such as Rhodapex CO-436. Nonionic surfactants include Surfynol CT-111, TG, polyoxyethylene sorbitan fatty acid esters such as Tween 65 and 80, sorbitan fatty acid esters such as Span 65, alkylphenol ethoxylates such as Igepal CO-210 and 430, dimethicone copolyols such as Dow Corning 190, 193, and Silwet L7001.

The addition of polymers has been studied including xanthan gum, cellulosics such as hydroxyethylcellulose (HEC), carbomethoxycellulose (CMC), lauryldimonium hydroxypropyl oxyethyl cellulose (Crodacel QL), hydroxypropylcellulose (HPC), and hydroxypropylmethylcellulose (HPMC), poly(acrylic acid), cyclodextrins, methyl acrylamido propyl triammonium chloride (MAPTAC), polyethylene oxide, polyvinylpyroliddone, polyvinyl alcohol, and propylene oxide/ethylene oxide random copolymers. Poloxamers may also be used as additives. Examples include both the Pluronic® polyols having an $(P_1)_a(P_2)_b(P_1)_a$ structure such as Pluronic® F38, L44, P65, F68, F88, L92, P103, P104, P105, F108, L122 and F127, as well as the reverse Pluronic® R series $(P_2)_a(P_1)_b(P_2)_a$ structure such as Pluronic® 17R2 and 25R8. Other miscellaneous materials include propylene glycol, urea, triethanolamine, alkylphenol ethoxylates (Iconol series), and linear alcohol alkoxylates (Plurafac series).

Additives affect the viscosity of the compositions differently depending upon the nature of the additive and its concentration. Some additives will affect the initial or final viscosity, whereas others will affect the temperature range of the viscosity response, or both.

Potassium chloride and acetamide MEA are two examples of additives which decrease the final viscosity of the composition (see, Example 30). KCl (0.25%) added to a 1 wt% reversibly gelling polymer composition reduces the viscosity by about 3000

cps. See, Figure 6. The humectant, acetamide MEA, lowers the viscosity of a 1 wt% solution by approximately 1,500 cps (see, Figure 7).

Glycerin, ethanol and dimethicone copolymer have been shown to affect the temperature range over which the viscosity response occurs. Glycerin shifts the transition temperature to a slightly lower range from an initial 24-34 °C to about 24-30 °C, but does not affect the final viscosity (see, Example 44). The effect of ethanol on the viscosity is different at different concentration levels. At 5 wt% and 10 wt% added ethanol, the transition temperature is shifted to lower ranges, e.g., 24-29 °C and 20-29 °C, respectively. At 20 wt% added ethanol, the composition not only exhibits a lowering of the transition temperature, but also a marked increase in initial and final viscosity. See, Figure 8. Dimethicone copolymer (1 wt%) also changed the transition temperature, but in this instance the transition temperature range was raised to 28-41 °C. Thus, proper selection of additives permits the formulator to adjust the transition temperature to various ranges.

Those skilled in the art will appreciate that the polymer network compositions of the present invention may be utilized for a wide variety of cosmetic and personal care applications. To prepare a cosmetic composition, an effective amount of cosmetically active agent(s) which imparts the desirable cosmetic effect is incorporated into the reversibly gelling polymer network composition of the present invention. Preferably the selected agent is water soluble, which will readily lend itself to a homogeneous dispersion through out the reversibly gelling polymer network composition; however, the polymer network has been demonstrated to significantly solubilize or suspend hydrophilic agents in order to improve formulation homogeneity (see, Example 36). It is also preferred that the agent(s) is nonreactive with the polymer network composition. For materials which are not water soluble, it is also within the scope of the invention to disperse or suspend powders or oil (lipophilic materials) throughout the polymer network composition. It will also be appreciated that some applications may require a sterile environment. It is contemplated as within the scope of the invention that the reversibly gelling polymer network compositions of the present invention may be prepared under sterile conditions. An additional feature

of the reversibly gelling polymer composition is that is prepared from constituent polymers that have known accepted toxicological profiles.

The poloxamer:poly(acrylic acid) polymer network has been evaluated under Good Laboratory Practice (GLP) standard protocols known in the art for toxicity in animal models and found to exhibit no toxic effects. The results of the toxicity study are summarized in the following Table 1. The non-toxicity of the polymer network makes it an ideal candidate for use in cosmetic compositions.

Table 1. Toxicity data for 6% poloxamer:poly(acrylic acid) solution at pH 7.

Reaction testes	mode of testing	results
Skin sensitization	guinea pig - topical	not a sensitizer
eye irritation	rabbit eye instillation	negative
primary dermal irritation	rabbit - topical	very slight edema (1 on a scale of 1-8)
acute dermal toxicity	rat - single dose (2g/kg)	no toxicity
acute oral toxicity	rat - single dose (5g/kg)	no toxicity
AMES test		negative

Exemplary cosmetic and personal care applications. for which the reversibly gelling polymer network composition may be used include. but are not limited to.baby products. such as baby shampoos. lotions. powders and creams: bath preparations. such as bath oils, tablet and salts, bubble baths, bath fragrances and bath capsules; eye makeup preparations, such as eyebrow pencil. eyeliner, eye shadow, eye lotion, eye makeup remover and mascara; fragrance preparations, such as colognes and toilet waters, powders and sachets; noncoloring hair preparations, such as hair conditioner, hair spray, hair straighteners, permanent waves, rinses shampoos, tonics, dressings and other grooming aids; color cosmetics; hair coloring preparations such as hair dye, hair tints, hair shampoos, hair color sprays, hair lighteners and hair bleaches; makeup preparations such as face powders, foundations, leg and body paints, lipstick, makeup bases, rouges and makeup fixatives; manicuring preparations such as basecoats and

undercoats, cuticle softeners, nail creams and lotions, nail extenders, nail polish and enamel, and nail polish and enamel remover; oral hygiene products such as dentrifices and mouthwashes; personal cleanliness, such as bath soaps and detergents, deodorants, douches and feminine hygiene product; shaving preparations such as aftershave lotion, beard softeners, men's talcum, shaving cream, shaving soap and preshave lotions; skin care preparations such as cleansing preparations, skin antiseptics, depilatories, face and neck cleansers, body and hand cleansers, foot powders and sprays, moisturizers, night preparations, paste masks, and skin fresheners; and suntan preparations such as suntan creams, gels and lotions, indoor tanning preparations.

Preparation of the above-named cosmetic compositions and others may be accomplished with reference to any of the cosmetic formulation guidebooks and industy journals which are available in the cosmetic industry. These references supply standard formulations which may be modified by the addition or substitution of the reversible viscosifying polymer network of the present invention into the formulation. Suitable guidebooks include Cosmetics and Toiletries Magazine, Vol. 111 (March, 1996); Formulary: Ideas for Personal Care; Croda, Inc, Parsippany, NJ (1993); and Cosmeticon: Cosmetic Formulary, BASF, which are hereby incorporated in their entirety by reference.

The cosmetic composition may be in any form. Suitable forms include but are not limited to lotions, creams, sticks, roll-ons formulations, mousses, aerosol sprays, pad-applied formulations, and film-forming formulations.

As those skilled in the art will appreciate, the foregoing list is exemplary only. Because the reversibly gelling polymer network composition of the present invention is suited for application under a variety of physiological conditions, a wide variety of cosmetically active agents may be incorporated into and administered from the polymer network composition. In addition to the poloxamer:poly(acrylic acid) polymer network, additional cosmetically acceptable carriers may be included in the composition, such as by way of example only, emollients, surfactants, humectants, powders and other solvents. By way of example only, the cosmetic composition also may include additional components, which serve to provide additional aspects of the

cosmetic affect or to improve the stability and/or administration of the cosmetic. Such additional components include, but are not limited to, preservatives, abrasives, acidulents, antiacne agents, anti-aging agents, antibacterials, anticaking, anticaries agents, anticellulites, antidandruff, antifungal, anti-inflammatories, anti-irritants, antimicrobials, antioxidants, astringents, anitperspirants, antiseptics, antistatic agents, astringents, binders, buffers, additional carriers, chelators, cell stimulants, cleansing agents, conditioners, deodorants, dipilatories, detergents, dispersants, emollients, emulsifiers, enzymes, essential oils, exfoliants, fibers, film forming agents, fixatives, foaming agents, foam stabilizers, foam boosters, fungicides, gellants, glosser, hair conditioner, hair set resins, hair sheen agents, hair waving agents, humectants, lubricants, moisture barrier agents, moisturizers, ointment bases, opacifier, plasticizer, polish, polymers, powders, propellant, protein, refatting agents, sequestrant, silicones, skin calming agents, skin cleansers, skin conditioners, skin healing, skin lightening agents, skin protectants, skin smoothing agents, skin softening agents, skin soothing agents, stabilizers, sunscreen agents, surfactants, suspending agents, tanning accelerators, thickeners, vitamins, waxes, wetting agents, liquefiers, colors, flavors and/or fragrances . Suitable materials which serve the additive functions listed here are well known in the cosmetic industry. A listing of the additive function and materials suitable for incorporation into the cosmetic composition may be found in Appendix A, which is appended hereto at the end of the specification. Further information may be obtained by reference to The Cosmetic Bench Handbook, Cosmetics & Toiletries; C.C. Urbano, editor, Allured Publ. Corp., 1996, which is hereby incorporated in its entirety by reference.

A brief description of some preferred additives and cosmetically active agents follows. The compositions of the invention include a safe and effective amount of a cosmetically active agent. "Safe and effective", as it is used herein, means an amount high enough to significantly positively modify the condition to be treated or the cosmetic effect to be obtained, but low enough to avoid serious side effects.

Preservatives can be desirably incorporated into the cosmetic compositions of the invention to protect against the growth of potentially harmful microorganisms.

Suitable preservatives include, but are not limited to, alkyl esters of para-hydroxybenzoic acid, hydantoin derivatives, parabens, propioniate salts, triclosan tricarbanilide, tea tree oil, alcohols, farnesol, farnesol acetate, hexachlorophene and quaternary ammonium salts, such as benzolconjure, and a variety of zinc and aluminum salts. Cosmetic chemists are familiar with appropriate preservatives and may selects that which provides the required product stability. Preservatives are preferably employed in amounts ranging from about 0.0001% to 2% by weight of the composition.

Emollients can be desirably incorporated into the cosmetic compositions of the invention to provide lubricity to the formulation. Suitable emollients may be in the form of volatile and nonvolatile silicone oil, highly branched hydrocarbons and synthetic esters. Amounts of emollients may be in the range of about 0.1-30 wt%, and preferably about 1-20 wt%. By way of example only, suitable silicones include cyclic or linear polydimethylsiloxanes, polyalkylsiloxanes, polyalkylarylsiloxanes and polyether siloxanes. By way of example only, suitable ester emollients include alkenyl esters of fatty acids, polyhydric alcohols, such as ethylene glycol mono and di-fatty acid esters, polyethylene glycol and the like, ether-esters, such as fatty acid esters of ethoxylated fatty alcohols, wax esters, such as beeswax, spermaceti, mysristyl myristate and stearyl stearate, and sterol esters, such as cholesterol fatty acids.

A variety of oily emollients may be employed in the compositions of this invention. These emollients may be selected from one or more of the following classes: 1. Triglyceride esters such as vegetable and animal fats and oils. Examples include castor oil, cocoa butter, safflower oil, cottonseed oil, corn oil, olive oil, cod liver oil, almond oil, avocado oil, palm oil, sesame oil, squalene, Kikui oil and soybean oil; 2. Acetoglyceride esters, such as acetylated monoglycerides; 3. Ethoxylated glycerides, such as ethoxylated glyceryl monostearate; 4. Alkyl esters of fatty acids having 10 to 20 carbon atoms, such as, methyl, isopropyl, and butyl esters of fatty acids, and including hexyl laurate, isohexyl laurate, isohexyl palmitate, isopropyl palmitate, decyl oleate, isodecyl oleate, hexadecyl stearate decyl stearate, isopropyl isostearate, diisopropyl adipate, diisohexyl adipate, dihexyldecyl adipate,

diisopropyl sebacate, lauryl lactate, myristyl lactate, and cetyl lactate; 5. alkenyl esters of fatty acids having 10 to 20 carbon atoms, such as oleyl myristate, oleyl stearate, and oleyl oleate and the like; 6. fatty acids having 10 to 20 carbon atoms, such as pelargonic, lauric, myristic, palmitic, stearic, isostearic, hydroxystearic, oleic, linoleic, ricinoleic, arachidic, behenic, and erucic acids and the like; 7. fatty alcohols having 10 to 20 carbon atoms, such as, lauryl, myristyl, cetyl, hexadecyl, stearyl, isostearyl, hydroxystearyl, oleyl, ricinoleyl, behenyl, erucyl, and 2-octyl dodecanyl alcohols are examples of satisfactory fatty alcohols and the like, 8. fatty alcohol ethers, such as ethoxylated fatty alcohols of 10 to 20 carbon atoms including the lauryl, cetyl, stearyl, isostearyl, oleyl, and cholesterol alcohols. having attached thereto from 1 to 50 ethylene oxide groups or 1 to 50 propylene oxide groups; 9. ether-esters such as fatty acid esters of ethoxylated fatty alcohols; 10. Lanolin and derivatives. such as lanolin. lanolin oil. lanolin wax. lanolin alcohols, lanolin fatty acids. isopropyl lanolate. ethoxylated lanolin. ethoxylated lanolin alcohols. ethoxylated cholesterol. propoxylated lanolin alcohols. acetylated lanolin alcohols. lanolin alcohols linoleate. lanolin alcohols ricinoleate. acetate of lanolin alcohols ricinoleate. acetate of ethoxylated alcohols-esters. hydrogenolysis of lanolin, ethoxylated hydrogenated lanolin. ethoxylated sorbitol lanolin. and liquid and semisolid lanolin absorption basesand the like; 11. polyhydric alcohol esters, such as. ethylene glycol mono and di-fatty acid esters. diethylene glycol mono-and di-fatty acid esters. polyethylene glycol (200-6000) mono- and di-fatty acid esters. propylene glycol mono- and di-fatty acid esters. polypropylene glycol 2000 monooleate, polypropylene glycol 2000 monostearate, ethoxylated propylene glycol monostearate, glyceryl mono- and di-fatty acid esters. polyglycerol polyfatty esters. ethoxylated glyceryl monostearate, 1,2-butylene glycol monostearate, 1,2-butylene glycol distearate. polyoxyethylene polyol fatty acid ester, sorbitan fatty acid esters, and polyoxyethylene sorbitan fatty acid esters are satisfactory polyhydric alcohol esters; 12. wax esters such as beeswax. spermaceti, myristyl myristate, stearyl stearate; 13. beeswax derivatives, e.g. polyoxyethylene sorbitol beeswax; 14. vegetable waxes including carnauba and candelilla waxes; 15. phospholipids such as lecithin and derivatives; 16. sterol including cholesterol and cholesterol fatty acid

esters; 17. amides such as fatty acid amides, ethoxylated fatty acid amides, solid fatty acid alkanolamides.

Humectants may be added to the composition to increase the effectiveness of the emollient, to reduce scaling, to stimulate removal of built-up scale and improve skin feel. By way of example only, suitable humectants include polyhydric alcohols, such as glycerol, polyalkylene glycols, alkylene polyols their derivatives, propylene glycol, dipropylene glycol, polypropylene glycol, polyethylene glycol, sorbitol, hydroxypropyl sorbitol, hexylene glycol, 1,3-butylene glycol, 1,2,6-hexanetriol, ethoxylated glycerol, propoxylated glycerol and the like. The amount of humectant may be in the range of about 0.5-30 wt% and preferably between 1-15 wt%.

In topical skin care applications, a variety of active substances may be advantageously employed. By way of example only suitable active agents which may be incorporated into the cosmetic composition include anti-aging active substances, anti-wrinkle active substances, hydrating or moisturizing or slimming active substances, depigmenting active substances, substances active against free radicals, anti-irritation active substances, sun protective active substances, anti-acne active substances, firming-up active substances, exfoliating active substances, emollient active substances, and active substances for the treating of skin disorders such as dermatitis and the like.

By way of example only, in the case of hydration, one or more moisturizers may be used, such as glycerin or urea, in combination with one or more precursor agents for the biosythesis of structural proteins, such as hydroxyproline, collagen peptides and the like.

By the way of example only, in case of slimming, at least one ketolytic agent or an alpha-hydroxyacid such a salicylic acid or 5-n-octanoicsalicylic acid may be used in combination with at least on liporegulating agent such as caffeine.

By way of example only, in the case of depigmentation, at least one keratolytic agent is used in combination with a depigmenting agent such as hydroquinone, tyrosinasee inhibitor (kosic acid), ascorbic acid, kojic acid and sodium metabisulfite an the like.

By way of example only, in the case of protection against free radical agents, vitamin E (against $COO^{\cdot}$ radicals), superoxide dismutase (against $O_2^{\cdot}$ free radicals) and sugar and caffeine (against $OH^{\cdot}$ free radicals).

By way of example only, in the case of anti-aging, moisturizers, sunscreens, alpha-hydroxyacids, salicylic acid or surface restructuring agents may be used in combination with enzymes for the repair of DNA, vascular protective agents or phospholipids rich in oligoelements and polyunsaturated fatty acids.

By way of example only, in the case of anti-acne agents, keratolytics, such as salicylic acid, sulfur, lactic acid, glycolic, pyruvic acid, urea, resorcinol and N-acetylcysteine, and retinoids, such as retinoic acid and its derivatives may be used.

By way of example only, in the case of anti-inflammation, non-steroidal anti-inflammatory agents (NSAIDS) may be used, such as propionic acid derivatives, acetic acid, fenamic acid derivatives, biphenylcarboxylic acid derivatives, oxicams, including but not limited to aspirin, acetaminophen, ibuprofen, naproxen, benoxaprofen, flurbiprofen, fenbufen, ketoprofen, indoprofen, pirprofen, carporfen, and bucloxic acid and the like.

By way of example only, in the case of antibiotics and antimicrobials may be included in the composition of the invention. Antimicrobial drugs preferred for inclusion in compositions of the present invention include salts of β-lactam drugs, quinolone drugs, ciprofloxacin, norfloxacin, tetracycline, erythromycin, amikacin, triclosan, doxycycline, capreomycin, chlorhexidine, chlortetracycline, oxytetracycline, clindamycin, ethambutol, hexamidine isethionate, metronidazole, pentamidine, gentamicin, kanamycin, lineomycin, methacycline, methenamine, minocycline, neomycin, netilmicin, paromomycin, streptomycin, tobramycin, miconazole and amanfadine and the like.

By way of example only, in the case of sunscreen protection, suitable agents include 2-ethylhexyl p-methoxycinnamate, 2-ethylhexyl N,N-dimethyl-p-aminobenzoate, p-aminobenzoic acid, 2-phenyl p-methoxycinnamate, 2-ethylhexyl octocrylene, oxybenzone, homomenthyl salicylate, octyl salicylate, 4,4'-methoxy-t-butyldibenzoylmethen, 4-isopropyl dibenzoylmethane, 3-benzylidene camphor, 3-(4-

methylbenzylidene) camphor, titanium dioxide, zinc oxide, silica, iron oxide, and mixtures thereof and the like. The sunscreening agents disclosed therein have, in a single molecule, two distinct chromophore moieties which exhibit different ultra-violet radiation absorption spectra. One of the chromophore moieties absorbs predominantly in the UVB radiation range and the other absorbs strongly in the UVA radiation range. These sunscreening agents provide higher efficacy, broader UV absorption, lower skin penetration and longer lasting efficacy relative to conventional sunscreens. Generally, the sunscreens can comprise from about 0.5% to about 20% of the compositions useful herein. Exact amounts will vary depending upon the sunscreen chosen and the desired Sun Protection Factor (SPF). SPF is a commonly used measure of photoprotection of a sunscreen against erythema.

By way of example only, in the case of sunless tanning agents include. dihydroxyacetone, glyceraldehyde. indoles and their derivatives, and the like.

The composition may include cleansing surfactants. Cleansing surfactants are cationic. anionic. amphoteric or non-ionic surfactants which are water-soluble and produce a consumer-acceptable amount of foam. Nonionic surfactants are well-known materials and have been used in cleansing compositions. Therefore. suitable nonionic surfactants include. but are not limited to, compounds in the classes known as alkanolamides. block copolymers of ethylene and propylene. ethoxylated alcohols, ethoxylated alkylphenols, alkyl polyglycosides and mixtures thereof. In particular, the nonionic surfactant can be an ethoxylated alkylphenol. i.e., a condensation product of an alkylphenol having an alkyl group containing from about 6 to about 12 carbon atoms in either a straight chain or branched chain configuration with ethylene oxide, the ethylene oxide being present in an amount equal to at least about 8 moles ethylene oxide per mole of alkylphenol. Examples of compounds of this type include nonylphenol condensed with about 9.5 moles of ethylene oxide per mole of phenol; dodecylphenol condensed with about 12 moles of ethylene oxide per mole of phenol; dinonylphenol condensed with about 15 moles of ethylene oxide per mole of phenol; octylphenol condensed with about ten moles of ethylene oxide per mole of phenol; and diisooctyl phenol condensed with about 15 moles of ethylene oxide per mole of

phenol.

A wide variety of acids, bases, buffers, and sequestrants can be utilized to adjust and/or maintain the pH and ionic strength of the compositions useful in the instant invention. Materials useful for adjusting and/or maintaining the pH and/or the ionic strength include sodium carbonate, sodium hydroxide, hydrochloric acid, phosphoric acid, sulfuric acid, acetic acid, sodium acetate, sodium hydrogen phosphate, sodium dihydrogen phosphate, citric acid, sodium citrate, sodium bicarbonate, triethanolamine, EDTA, disodium EDTA, tetrasodium EDTA, and the like.

The polymer network may be useful as a solubilization agent in cosmetic and personal care applications. A self-assembling system comprising the reversibly gelling polymer network exhibits thermogelation, pH sensitivity, and the ability to solubilize hydrophobic agents in aqueous media. When poloxamer is copolymerized with poly(acrylic acid) (PAA) according to the invention, the resulting copolymer network is bioadhesive and can be applied in a number of therapies. The materials described in this invention combine "reverse" thermoviscosification mucoadhesion, solubilization of hydrophobic and difficult to manage moieties, easy formulation, and protection of agents from degradation to provide a superior medium for cosmetic and personal care products.

The reversible viscosification of the polymer network at elevated temperatures makes the materials ideal for use as thickening agents in cosmetic and personal care products at any temperature above the transition. Another use of the "thickening" of solutions containing the polymer network as a thickener supplement in emulsions. Currently emulsifiers are often negatively effected by increased temperatures. An additive with reverse thermal viscosification properties, however, would react in exactly the opposite way, increasing its ability to emulsify as it gained three-dimensional structure upon heating above its transition temperature.

In the applications where the reversibly gelling polymer composition can act as a surfactant, the polymer network will have the ability to act as a primary emulsifier without any (or with very little) addition of traditional surfactant. The responsive polymer network will also act as a stabilizer for oil-soluble ingredients that would

conventionally need to be solubilized by oils in formulation. The hydrophobic portion of the polymer network (PPO) forms domains which act as reservoirs for an oil-soluble or hydrophobic additive, such as an oil droplet, as is illustrated in Figure 9. These two features of the material of the invention would enable it to be used as a base in a cosmetic formulation that would be non-greasy due to lack of oils, such as petrolatum and mineral oil. The increase in viscosity above the transition temperature adds structure and yield value to the water phase and results in a highly stable emulsion.

Thus, poloxamer:poly(acrylic acid) polymer network compositions are valuable materials in the formulation of cosmetic and personal care products. In particular, they may be useful as rheology modifiers, provide a cushioning effect on the skin, offer barrier properties and controlled release of actives. In addition, the polymer composition may serve as a surfactant and is compatible with most ingredients used in the cosmetic industry.

The above properties of the poloxamer:poly(acrylic acid) polymer network provides a cosmetic composition that spreads evenly and smoothly and which leaves a lubricious feel to the skin. A sensory evaluation was conducted with seven random volunteers in order to determine the sensory effect of a cream formulation on the skin. An oil-free cosmetic formulation was prepared substantially as set forth in Example 33(b) and was compared to Nivea Oil Free, a product of Beiersdorf of Germany. Volunteers placed unmarked samples on the skin and evaluated the formulation based upon its feel and texture. The samples were rated on a scale of 1 (bad) to 5 (good). The oil-free cosmetic formulation of the present invention scored equally to the Nivea Oil Free moisturizing product. Both samples scored a 3.5 on the rating scale.

The observed thermal behavior of the reversibly gelling polymer network suggests that the increase in viscosity is due to aggregation of the hydrophobic portion of the poloxamer at the transition temperature which, because of bonding with the poly(acrylic acid) component, serve as temporary cross-links which physically bridge adjacent chains of poly(acrylic acid) to provide a viscous gel-like extended polymer structure. The aggregation process may be understood as occurring as shown in Figure

10, in which a backbone 20 represent poly(acrylic acid), a thin band 24 represents the hydrophobic poly(propylene) glycol region of the poloxamer and a thick band 26 represents the hydrophilic poly(ethylene glycol) region of the poloxamer. Below the transition temperature, the polymer network is randomly arranged, as is shown in Figure 10(a). At or above the transition temperature, the hydrophobic regions 24 associate to form aggregations or micelles 28, as is shown in Figure 10(b). The association increases the effective molecular weight of the polymer network composition with the corresponding increase in viscosity.

A general method of making the poloxamer:PAA polymer network compositions of the present invention comprises solubilization of the poloxamer in acrylic acid monomer, followed by polymerization of the monomer to PAA. Polymerization may be accomplished by addition of a polymerization initiator or by irradiation techniques. The initiator may be a free radical initiator, such as chemical free radical initiators and uv or gamma radiation initiators. Conventional free radical initiators may be used according to the invention, including, but in no way limited to ammonium persulfate, benzoin ethyl ether, benzyl peroxide, 1,2'-azobis(2,4-dimethylpentanitrile) (Vazo 52) and azobisisobutyronitrile (AIBN). Initiation may also be accomplished using cationic or ionic initiators. Many variations of this methods will be apparent to one skilled in the art and are contemplated as within the scope of the invention. For example, the poloxamer component may be dissolved in an acrylic acid/water mixture instead of pure monomer. It may be desirable to remove unreacted monomer and/or free poloxamer from the resultant polymer network. This may be accomplished using conventional techniques, such as, by way of example, dialysis or sohxlet extraction.

Without intending to be bound by a particular mechanism or structure, the following scheme represents a possible chemical mechanism for the formation of the system here described. These mechanisms are presented by way of explanation and are no way limiting of the invention. It is contemplated that these or other mechanistic routes may in fact occur in the formation of the polymer network of the present invention.

I. Initiation

RR --> 2R• (1)

R• + CH_2=CHCOOH ---> RCH_2CH•COOH (2)

II. Hydrogen Abstraction

R• + -$OCHRCH_2O$- ---> RH + -OCR•CH_2O- (3)

R• + -CH_2CH_2COOH ---> RH + -CH_2CH•COOH (4)

III. Chain Transfer

-CH_2CH•COOH + -OCH_2CRH- ---> -CH_2CH_2COOH + -OCH_2CR•- (5)

-OCH_2CR•O- + -$CH_2CHCOOH$ ---> -OCH_2CRHO- + -CH_2CH•COOH (7)

IV. Propagation

RCH_2CH•COOH + CH_2=CHCOOH --> $RCH_2CHCOOHCH_2CH$•COOH (8)

V. Side Chain Branching Off AA Backbone

-CH_2CH•COOH- + CH_2=CHCOOH --> -$CH_2CH(CH_2CH$•COOH)COOH (9)

VI. AA Branching off Poloxamer Backbone

-OCH_2CR•O- + CH_2=CHCOOH --> -$OCH_2CR(CH_2CH$•COOH)O- (10)

VII. Homogenous Termination

2 -CH_2CH•COOH --> -$CH_2CHCOOHCHCOOHCH_2$- (11)

VIII. Heterogenous Termination with bonding of Pluronic to PAA

-CH_2CH•COOH + -OCH_2C•RO- --> -$CH_2CH(-OCRCH_2O-)COOH$ (12a)

The scheme for bonding of poloxamer to acrylic acid may involve initiation (eq 1), hydrogen abstraction from the propylene or ethylene moiety of the poloxamer (eq 3), and attachment to acrylic acid via addition across the unsaturated bond (eq 10). Propagation (eq 8) leads to the final PAA.

Alternatively, the mechanism may proceed by initiation according to eqs. (1) and (2), propagation to form PAA (eq.8), a chain transfer reaction to generate a reactive poloxamer moiety (eq. 5), followed by addition of the reactive poloxamer

moiety to the unsaturated bond of acrylic acid (eq. 10) and subsequent propagation of the PAA chain.

Thus the polymer network may include a plurality of poly(acrylic acid)) units bonded to a single poloxamer unit or, alternatively, a plurality of poloxamer units bound to a single PAA backbone. Combinations of these alternatives are also a possibility.

Reverse phase polymerization may be used to prepare polymer network beads by dispersion of the poloxamer and acrylic acid monomer mixture in a nonpolar solvent such as hexane or heptane. The aggregating polymer/monomer solution is dispersed with agitation in the nonpolar solvent in order to suspend droplets of the solution. Polymerization of the monomer is initiated by conventional means (i.e.. addition of a initiator or irradiation) in order to polymerize the monomer and form responsive polymer network beads. See, U.S.S.N. 08/276.532 filed July 18, 1995 and entitled "Useful Responsive Polymer Gel Beads" for further information on the preparation of polymer gel beads. herein incorporated by reference. Such a method may be particularly desirable to provide a heat sink for the heat generated in the exothermic polymerization reaction.

The polymer network complexes and aqueous gelling solutions of the present invention may be understood with reference to the following examples. which are provided for the purposes of illustration and which are in no way limiting of the invention.

Example 1 This example describes the synthesis of a polymer network and an aqueous responsive polymer network solution prepared using a triblock polymer of poly(ethylene glycol) and poly(propylene glycol), Pluronic® F27 polyol, and poly(acrylic acid). This example also characterizes the gelation and the physical properties of the resultant polymer network.

Synthesis. Block copolymer of poly(propylene glycol) (PPG) and poly(ethylene glycol) (PEG) having triad ABA structure $(PEG)_A(PPG)_B(PEG)_A$ (Pluronic® F127 NF polyol, Poloxamer 407 NF polyol, where "F" means Flakes, "12" means 12X300=3600 - MW of the PPG section of the block copolymer, "7" PEG in

the copolymer is 70 wt%, and nominal molecular weight is 12,600) from BASF (3.0 g) was dissolved in 3.0 g acrylic acid (Aldrich). This represents a substantially 1:1 weight ratio of Pluronic® F127 polyol and poly(acrylic acid). The solution was deaerated by N_2 bubbling for 0.5 h and following addition of 100 ml of freshly prepared saturated solution of ammonium persulfate (Kodak) in deionized water was kept at 70 °C for 16 h resulting in a transparent polymer.

Viscosity measurements. A known amount of the resultant polymer was suspended in 100 ml deionized water into which NaOH was added. Following swelling for 3 days while stirring, the pH of the resulting fine suspension was adjusted to 7. Samples of 15 ml each were taken, and pH in each vial was adjusted to desired value by addition of 1 M HCl or NaOH. Samples were then kept overnight and their viscosities were measured at different temperatures using Brookfield viscometer using either an SC4-18 or an SC4-25 spindle.

A control experiment was done with a physical blend of Pluronic® F127 polyol and poly(acrylic acid) (MW 450.000) available from Aldrich. Pluronic® F127 polyol and poly(acrylic acid) were dissolved together in deionized water at 1 wt% total polymer concentration and the resultant solution was adjusted to pH 7, stirred and kept in refrigerator. The responsiveness of the polymer network composition and the physical blend to temperature and pH is illustrated in Figs. 1, 11 and 12. Figs. 1 and 2 clearly demonstrate that the synthetic route outlined above resulted in a polymer network system that is sensitive to pH and temperature of the environment. Note that the liquid-gel transition is very sharp, occurring over a very small temperature change or pH (see, Figure 11). Figure 12 is a viscosity vs. temperature graph comparing the gelling characteristics of the responsive polymer network composition and the physical blend. The blend prepared by physically mixing of the triblock PEG/PPG/PEG polymer and poly(acrylic acid) did not exhibit viscosifying effect either as a function of temperature or pH.

It was generally observed that 0.5-5 wt% polymer network compositions made of Pluronic® F127 polyol and poly(acrylic acid) viscosify at temperatures of around 30 °C and higher if pH is adjusted to 6 or higher. The gelling effect was observed in

polymer network compositions standing 3 months or longer. Repeated heating and cooling of responsive polymer network compositions did not cause deterioration of the polymer network or the gelling effect. Solutions of either Pluronic® F127 polyol or poly(acrylic acid) (1-5 w% in water, adjusted to pH 6 or higher) or physical blends of the two lacked the reverse thermal gelling effects found for polymer network compositions.

Example 2. This example describes a standard operating procedure for the manufacture of the reversible gelling polymer network.

The procedure is based upon a 50 liter production. A NaOH solution was prepared by dissolving 131.8 g NaOH pellets in 131.8 mL DI water (50% solution). The NaOH was allowed to dissolve completely. The NaOH solution will be used to convert a percentage of the acrylic acid to sodium acrylate in situ. Acrylic acid monomer (4 kg) is charged into a monomer feed tank and agitated at 250 rpm. NaOH is added slowly. The precipitate formed as the acrylic acid is neutralized to sodium acrylate is allowed to dissolve. Pluronic® F127 (3.5 kg) is slowly added to the monomer feed tank. Pluronic® F127 is dissolved under continued agitation. Norpar 12 (a refined C-12 alkane) is added to the reaction vessel (37 L). The mixture is agitated at 100 rpm. Stabilizer solution of Ganex V-126 is prepared in 2L Norpar 12 and added to the reactor under agitation.

A reaction vessel was degassed using a nitrogen sparge introduced from the bottom of reactor and was continued throughout the reaction. Initiator (13.63 g Lauryl peroxide and 4.23 g Vazo 52 in 0.7 kg acrylic acid monomer) is introduced into the monomer solution. The monomer solution was transferred to the reaction vessel. Agitation was increased to 150 rpm. Nitrogen sparging continued for an additional 20 minutes and then heating began. Heating began at a rate of 0.5-1.0 °C/min up to 75 °C. The reaction began to exotherm at about 45-50 °C and is allowed to continue without cooling until a maximum is reached. It is then cooled to 75 °C using forced cooling. The reaction continued for 12 hours and was then cooled to 35 °C. The slurry was transferred into pails and the polymer beads were allowed to settle.

The slurry was filtered through Buchner Funnels with filter paper (11 μm pore

size) until the bulk of the Norpar had been removed from the beads. The beads were washed three times with heptane. The filtered beads were transferred to a Pyrex drying tray and spread on the tray in a uniform layer. The beads were dried under vacuum for 4 hours at 40-50 °C. The dried beads were analyzed as follows.

Elemental analysis. The elemental analysis was performed by Quantitative Technologies, Inc., Whitehouse, NJ using a Perkin Elmer 2400 CHN Elemental Analyzer. Analysis provided C (52.49%), H (7.50%), N (< 0.05%), the balance assumed to be oxygen (39.96%).

Thermal Gravimetric Analysis (TGA). The TGA method was performed by Massachusetts Material Research, Inc., West Boylston, MA using a Dupont TGA model 295. The assay was run using a temperature ramp from 30 to 500 °C/min. The resolution for the system was set to 4 (1.0 °C/min for all slope changes). The data was analyzed using the first derivative of the curve and using maxima and minima to mark transitions. The moisture content was also calculated in this manner. The first derivative yielded three maxima. The first transition (moisture) was 3.0% by weight, the second transition was 14.0% by weight and the third was 67.02% by weight. Residue (15.98% remained).

Molecular weight determination by gel permeation chromatography (GPC). The molecular weight was determined by GPC on a Hewlet Packard 1100 Liquid Chromatography system with a Viscotech T60 Triple Detector system. Three Waters Ultrahydrogel columns, 1000, 500 and 250 Å, were used for the separation. The mobile phase was 0.1M $NaNO_3$ and 0.01M K_2HPO_4 salt solution, pH adjusted with phosphoric acid to a pH of 8.0 ± 0.1. The flow rate for the separation was 0.9 mL/min. The column temperature was maintained at 15 °C. The injection volume for the assay was 50 μL. A PEG molecular weight standard of 23,000 Daltons was used to align the detectors. The result for the assay were:

M_n: 341,700 Daltons

M_p: 1,607,000 Daltons

M_w: 2,996,000 Daltons

Free poloxamer determination by GPC. The amount of free (unbound)

poloxamer in the polymer matrix was determined using the above GPC method and comparing the poloxamer peaks to that of a standard poloxamer solution. The typical result is approximately 18-22% free poloxamer by weight.

The effect of both the bonded and non-bonded poloxamer on the gelation properties of the responsive polymer network has been determined by extraction of the non-bonded poloxamer from the material. Such extraction studies have established that the graft co-polymer alone exhibits the characteristic reverse thermal gelation of the composition; however, the presence of non-bonded poloxamer component modulates the gelation process. The non-bonded poloxamer component can affect the temperature of transition (from liquid to gel) and the degree of transition and assists in a more controlled and reproducible transition.

Bound poloxamer determination by ethylene oxide (EO) titration. The EO titration was performed as follows. A 5 gm sample of the product polymer was extracted in dichloroethane for three hours at reflux temperatures. The solid is removed and dried under a vacuum for 12 hours at room temperature. The dry material is then analyzed using ASTM method D 2959-95, "Standard Test Method for Ethylene Oxide Content". The amount of EO in the sample is related to the amount of poloxamer bound to the polymer. The typical result is approximately 15 % by weight of EO.

The relative amount of free poloxamer may be varied dependent upon the relative proportions of starting materials and the method of polymerization. Although the residual solids presumably contain only poloxamer which is bonded to the poly(acrylic acid), i.e., a graft co-polymer, the material still shows strong viscosification when it is neutralized and dissolved in water. However, the temperature of viscosification is increased substantially and the degree of viscosification per gram of total solids is increased by removal of free poloxamer. Thus, the free poloxamer plays a role in modifying the extent and temperature of viscosification. The poloxamer undergoes conformational changes and changes to the critical micelle concentration as a function of temperature. The poloxamer will change from an open, non-aggregated form to a micellular, aggregated form with

changes in temperature.

Residual acrylic monomer determination by gas chromatography (GC). The residual acrylic acid monomer was determined by GC analysis using a Hewlet Packard GC 5890A, using a HP-FFDAP-TPA 10 m x 0.53 mm x 1μm column. The sample was extracted and run in methanol. Using an internal standard ratio, the sample was compared to a one point calibration. The typical results for this assay were below 70 ppm acrylic acid monomer.

Residual Norpar solvent by GC. The residual Norpar in the sample was determined by GC using the above method and comparing the Norpar peaks to that of a standard. The typical results were below 1.5 wt%.

UV-vis spectrum. Optical clarity data of UV-vis spectrophotometer was obtained. A 1.0% solution in water was prepared and measured at 420 nm. Transmittance (%) was typically greater than 90%.

Differential scanning calorimetry (DSC). The DSC was performed by Massachusetts Material Research, Inc., West Boylston, MA using a temperature ramp from 30 to 350 °C at 5 °C/min. The resolution for the system was set to 4 (1.0°C/min for all slope changes). The assay yielded one endothermic event at 265 °C, typically 270 J/g.

Examples 3-9. This example describes the synthesis of a several reversible thermal gelling polymer network prepared using a variety of poloxamers and poly(acrylic acid). The gelation and the physical properties of the resultant polymer network compositions are reported in Table 2.

Table 2.

example	poloxamer	poloxamer composition	polox-amer: PAA	trans. temp.	comments
3	Pluronic® F88 Prill polyol	2400 MW PPG; 80 wt% PEG; nominal MW 11,400	1:1	48 °C	viscosity response curve shown in Figure 13
4	Pluronic® F127 NF polyol	3600 MW PPG; 70 wt% PEG; nominal MW 12,600	1:1	30 °C	pentaerythritol triallyl ether crosslink agent used
5	Pluronic® P104 polyol	3000 MW PPG; 40 wt% PEG; nominal MW 5,900	1:1	28 °C	viscosity response curve shown in Figure 14
6	Pluronic® P123 polyol	3600 MW PPG; 30 wt% PEG; nominal MW 5,750	1:1	25 °C	viscosity response curve shown in Figure 15
7	Pluronic® F127/Pluronic® F108 polyol blend (1:1)	as above	1:1.7	42 °C	polymer solid formed, dried; resolubilized in neutralizing solution
8	Pluronic® F88 polyol	as above	1:1.7	80 °C	polymer solid formed, dried; resolubilized in neutralizing solution
9	Pluronic® F127/Pluronic® F88 polyol blend (1:1)	as above	1:1.7	85 °C	polymer solid formed, dried; resolubilized in neutralizing solution

Example 10. The following example demonstrates the effect of hydrophilic/hydrophobic ratio on the gelling temperature. Polymer network compositions were prepared from the following poloxamers shown in Table 3.

Table 3. Composition of poloxamers investigated.

triblock polyol polymer composition	MW of PPG block	wt% of PEG block
P103 $(PEG)_{37}(PPG)_{56}(PEG)_{37}$	3250	50
P104 $(PEG)_{25}(PPG)_{56}(PEG)_{25}$	3250	40
P105 $(PEG)_{16}(PPG)_{56}(PEG)_{16}$	3250	30

Table 3 shows that in this series, the fraction of PEG is reduced when the molecular weight of the PPG block is kept constant. Linse (*Macromol.* 26:4437-4449 (1993)) report phase diagrams for these copolymers in water were calculated and it was shown that two-phase boundaries corresponding to the beginning of aggregation are almost unaffected by the molecular mass, given a constant PEG/PPG ratio, whereas these boundaries shifted to lower temperature as the PEG content of the polymer is reduced at constant mass. The strong dependence of the PEG/PPG ratio is a consequence of the differing solubilities of PEG and PPG in water at the elevated temperatures. Thus one would suppose that aggregation that causes viscosification in the responsive polymer network composition should shift to lower temperature as PEG fraction decreases.

The poloxamer (3.0 g) was dissolved in 3.0 g acrylic acid. The solution was deaerated by N_2 bubbling for 20 min. and following addition of the 100 :l of freshly prepared saturated solution of ammonium persulfate in deionized water was kept at 70°C for 16 h resulting in a strong whitish polymer. A sample of the polymer obtained (0.4 g) was suspended in 40 ml deionized water into which NaOH was added. Suspended responsive polymer network particles were allowed to dissolve under constant stirring. The resulting 1 wt% polymer network solutions were subjected to the viscosity measurement at shear rate of 132 or 13.2 sec^{-1} using a SC4-18 spindle. It can be seen from Figure 16 that, firstly, viscosity of the 1 wt%

responsive polymer network solutions before viscosification (at 20-24°C) decreases in the series $(PEG)_{37}(PPG)_{56}(PEG)_{37}$(F103) > $(PEG)_{25}(PPG)_{56}(PEG)_{25}$(F104) > $(PEG)_{16}(PPG)_{56}(PEG)_{16}$(F105) and, secondly, the temperature at which gelation shifts from about 45°C for $(PEG)_{37}(PPG)_{56}(PEG)_{37}$ to about 35°C for $(PEG)_{25}(PPG)_{56}(PEG)_{25}$ and $(PEG)_{16}(PPG)_{56}(PEG)_{16}$. Both results are in excellent agreement with the theory set forth in Linse.

Example 11. The following example is related to release of and active agent from a poloxamer:poly(acrylic acid) polymer network. Drug loading and kinetics of release of the protein hemoglobin from poloxamer:poly(acrylic acid) polymer network is described.

Synthesis. Pluronic® F127 (3.0 g) was dissolved in 3.0 g acrylic acid. The solution was deaerated by N_2 bubbling for 0.5 h and following addition of 100 Fl of freshly prepared saturated solution of ammonium persulfate (Kodak) in deionized water was kept at 70°C for 16 h resulting in a transparent polymer. The resultant responsive polymer network obtained (5 g) was suspended in 95 ml deionized water into which NaOH was added. The resulting suspension was allowed to swell for 7 days.

Hemoglobin loading and release. A 5 wt% responsive polymer network composition (3 g) was allowed to swell for 16 h in 10 ml of 0.25 mg/ml solution of human hemoglobin (Sigma) in deionized water adjusted to pH 8. The resulting mixture was well shaken and placed into the feed chambers of customized vertical, static, Franz-like diffusion cells made of Teflon. The feed and receiver chambers of the diffusion cells were separated by mesh screens (# 2063). The receiver chamber was continuously stirred by a magnetic bar. The cells were allowed to equilibrate to either 25 or 37°C (in an oven). The feed and receiver phases consisted of 1 g of the hemoglobin-loaded responsive polymer network and 6 ml of phosphate-buffered saline (pH 7.4), respectively. In the control experiment, the feed phase was made of 1 g of 0.25 mg/ml hemoglobin solution. After the feed solution had been loaded into the cell, the kinetic time commenced. Samples of the receiver phase was withdrawn from time to time and their absorbance was measured spectrophotometrically at 400 nm.

To calculate hemoglobin concentrations, corresponding calibration curves (absorbance in PBS versus hemoglobin concentration) were generated. The results of the kinetic experiment are presented in Figure 17. It can be seen that the rate of hemoglobin release from the polymer network was substantially lowered at 37°C when compared to that at 25°C, because of viscosity increase in the polymer network at elevated temperatures (see Figure 1). The protein released from the polymer network composition still retained its native structure, as was determined by comparison of uv-vis spectra of release hemoglobin and natural hemoglobin.

Example 12. The following example is related to release of an active agent from a poloxamer:poly(acrylic acid) polymer network. Drug loading and kinetics of release of the protein lysozyme from a polymer network is reported.

Lysozyme loading and release. A 5 wt% responsive polymer network composition (3 g) was allowed to swell for 16 h in 10 ml of 1 mg/ml solution of chicken egg-white lysozyme (Sigma) and 1.5 mg/ml sodium dodecyl sulfate (Aldrich) in deionized water adjusted to pH 8.5. The resulting mixture was well shaken and placed into the feed chambers of customized vertical, static, Franz-like diffusion cells made of Teflon. The feed and receiver chambers of the diffusion cells were separated by mesh screens (# 2063). The receiver chamber was continuously stirred by a magnetic bar. The cells were allowed to equilibrate to either 25 or 37°C (in an oven). The feed and receiver phases consisted of 1 g of the lysozyme-loaded responsive polymer network and 6 ml of phosphate-buffered saline (pH 7.4), respectively. In the control experiment, the feed phase was made of 1 g of 1 mg/ml lysozyme solution. After the feed solution had been loaded into the cell, the kinetic time commenced. Samples were withdrawn and their absorbance measured spectrophotometrically at 280 nm. A calibration curve was prepared for lysozyme concentration ranging from 0 mg/ml to 0.5 mg/ml in phosphate buffered saline. The results of the kinetic experiment are presented in Figure 18. It can be seen that the rate of lysozyme release from the responsive polymer network composition was substantially lowered at 37°C when compared to that at 25°C, because of viscosity increase in responsive polymer network at elevated temperatures (see Figure 1).

In order to demonstrate the retention of the enzymatic activity of lysozyme, the lysozyme released from the responsive polymer network composition was assayed using Micrococcus lysodeikticus cells and compared to that of original lysozyme. The enzymatic activity of lysozyme was the same, within the error of the assay (15%), as that of the original lysozyme. Control without lysozyme in presence of sodium dodecyl sulfate did not show any appreciable lysis of the cells.

Example 13. The following example is related to release of an active agent from a poloxamer:poly(acrylic acid) polymer network. Drug loading and kinetics of release of insulin from a responsive polymer network composition is reported.

Insulin loading and release. A 5 wt% responsive polymer network composition (3 g) was allowed to swell for 16 h in 10 ml of 5 mg/ml solution of bovine Zn^{2+}-insulin (Sigma) in deionized water adjusted to pH 7. The resulting mixture was well shaken and placed into the feed chambers of customized vertical, static, Franz-like diffusion cells made of Teflon. The feed and receiver chambers of the diffusion cells were separated by mesh screens (# 2063). The receiver chamber was continuously stirred by a magnetic bar. The cells were allowed to equilibrate to either 25 or 37°C (in an oven). The feed and receiver phases consisted of 1 g of the insulin-loaded responsive polymer network and 6 ml of phosphate-buffered saline (pH 7.4), respectively. In the control experiment, the feed phase was made of 1 g of 5 mg/ml insulin solution. After the feed solution had been loaded into the cell, the timing commenced. Samples were withdrawn and their absorbance was measured spectrophotometrically at 280 nm. A calibration curve was prepared for insulin concentration ranging from 0 mg/ml to 1.25 mg/ml in phosphate buffered saline. The results of the kinetic experiment are presented in Figure 19. The rate of insulin release from responsive polymer network was substantially lowered at 37°C when compared to that at 25°C, because of viscosity increase in responsive polymer network at elevated temperatures (see Figure 1).

Example 14. This example demonstrates the preparation of a sterile reversibly gelling polymer network aqueous composition and the stability of the composition to sterilization. The polymer network is prepared as described in Example 1, except that

the composition is prepared at 2 wt% Pluronic® F127 polyol/poly(acrylic acid). After dissolution of the 2 wt% polymer network in water, the viscosity is measured. The composition then is sterilized by autoclaving at 121°C, 16 psi for 30 minutes. Viscosity is determined after sterilization. The corresponding curves for viscosity (a) before and (b) after sterilization are shown in Figure 20 and establish that minimal change in the viscosity profile of the material has occurred with sterilization.

Examples 15-30. These examples show additives which may be used to affect the transition temperature overall viscosification of the polymer network composition.

A 1 wt% polymer network was prepared in deionized water at pH 7 in which a variety of additives were included in the composition. The effect of the additive was determined by generation of a Brookfield viscosification curve. Results are reported in Table 4.

Table 4.

Example No.	Additive (wt%)	Effect of additive on:	
		transition temp. (°C)	final viscosity (% change)
15	1,2-methyl pyrrolidone (5)	I (1.8)	N
16	Rhodapex CO-436 (2)	I (1.6)	N
17	Dow Corning 190 (2)	I (5)	I (150)
18	isopropyl alcohol (0.5)	I (3.1)	I (45)
19	Pluronic® L122 (1)	D (4.4)	D (13)
20	Pluronic® F88 (1)	N	I (41)
21	Tween 80 (0.5)	N	I (18)
22	Germaben® II (1)	D (9)	I (100)
23	Iconol NP-6 (1)	D (9)	I (500)
24	Plurafac C-17 (0.5)	I (5.2)	D (36)
25	Dow Corning 193 (0.75)	I (4.1)	D (12)
26	glycerin (5)	D (2)	N
27	UC 50-HB-170/EO/PO random copolymer (0.5)	N	N
28	PVP K15 (1)	N	N
29	MAPTAC (1)	N	D (8)
30	potassium chloride (0.25)	N	D (34)

I = increase; D = decrease; and N = no change

Example 31. Because of the surfactant nature of the polymer network composition coupled with the gelation effect of the polymer network composition, it is possible to prepare formulation which are 100% water-based, but which are lubricous and thick.

Formulations including a nonionic surfactant formulation: An O/W (oil-in-water) emulsion was made by combining the following ingredients utilizing conventional mixing techniques:

Table 5.

Ingredient	% w/w
10 % wt. 1:1 responsive polymer network as prepared in Example 1	20.0
Emulsifying Wax NF[1]	2.5
Mineral Oil	5.0

[1] Polowax available from Croda

Into a vessel equipped with a high efficiency homogenizer, the formula amount of all ingredients is added, water is added to 100% w/w and allowed to mix to homogeneity. This formulation contains a nonionic surfactant and gives an emulsion that is fluid at room temperature but viscosifies above 32°C.

Formulations including a cationic surfactant formulation: An O/W (oil-in-water) emulsion was made by combining the following ingredients utilizing conventional mixing techniques:

Table 6.

Ingredient	% w/w
10 % wt. 1:1 responsive polymer network as prepared in Example 1	20.0
Behentrimonium Methosulfate (and) Cetearyl alcohol[1]	2.5
Mineral Oil	5.0

[1] Incroquat Behenyl TMS available from Croda

Into a vessel equipped with a high efficiency homogenizer, the formula amount

of all ingredients is added and allowed to mix to homogeneity. This formulation contains a cationic surfactant and gives an emulsion that is fluid at room temperature but viscosifies above 32°C.

Formulations including an anionic surfactant formulation: An O/W (oil-in-water) emulsion was made by combining the following ingredients utilizing conventional mixing techniques:

Table 7.

Ingredient	% w/w
10 % wt. 1:1 responsive polymer network as prepared in Example 1	20.0
Cetearyl Phosphate (and) Cetearyl alcohol[1]	2.5
Mineral Oil	5.0

[1] Crodafos CES available from Croda

Into a vessel equipped with a high efficiency homogenizer, the formula amount of all ingredients is added, water is added to 100% w/w and allowed to mix to homogeneity. This formulation contains a anionic surfactant and gives an emulsion that is fluid at room temperature but viscosifies above 32°C.

Example 32. Acne Medication: An oil-free, clear, anti-acne treatment is made by combining the following ingredients utilizing conventional mixing techniques:

Table 8.

Ingredient	% w/w
10 % wt. 1:1 responsive polymer network prepared as in Example 1	20.0
Glycerin USP	5.0
Salicylic Acid	2.0
DL-Panthenol	0.5
Germaben® II[1]	0.1
Disodium EDTA	0.2
USP Purified Water	72.2

[1] Germaben®II available from Sutton Laboratories

To one vessel, equipped with a Lightnin' Mixer with a 3 blade paddle prop,

the full amount of USP Purified Water to 100% w/w is added. While maintaining the temperature, with moderate to vigorous mixing, the formula amount of Disodium EDTA, Citric Acid, DL-Panthenol, Glycerin, Salicylic Acid, and Germaben® II is added. These materials are allowed to dissolve at 50°C. After dissolution, the vessel is then cooled to 20°C. To another vessel, equipped with a high efficiency homogenizer, the formula amount of responsive polymer network is added. The responsive polymer network vessel is then cooled to 4°C. After cooling, while vigorously homogenizing, the contents of the first vessel is added to the second vessel, and allowed to mix to homogeneity.

The composition displays a flowable clear jelly appearance with excellent spreadability and absorption characteristics at room temperature, and after heating the formulation to 32°C, the composition thickens to a gel-like consistency.

Example 33. (a) Oil-free Moisturizer (formulation I): An oil-free, lubricous moisturizer was made by combing the following ingredients utilizing conventional mixing techniques:

Table 9.

Ingredient	% w/w
10% wt 1:1 responsive polymer network as prepared in Example 1	20.0
Glycerin USP	5.0
PPG-2 Myristyl Ether Propioniate	3.0
DL-Panthenol	0.5
Germaben® II[1]	0.1
Disodium EDTA	0.2
Citric Acid	0.01
USP Purified Water	71.19

[1] Germaben® II available from Sutton Laboratories

The above ingredients were added and processed as described above for the acne composition. The composition displayed a flowable creamy lotion appearance with excellent emolliency, spreadability and absorption characteristics at room temperature. After heating the formulation to above 26°C, the composition thickened to a gel-like consistency. The viscosity vs. temperature curve is shown in Figure 21 and demonstrates that addition of adjuvants to the composition significantly enhances the responsive polymer network maximum viscosity (>900,000 cps). The use of the poloxamer:poly(acrylic acid) polymer network in the formulation also imparts a unique viscosification effect after application to the skin, which is not evident in typical commercial O/W emulsion formulations (See, Figure 21b).

(b) <u>Oil-free Moisturizer (formulation II):</u> An oil-free, lubricious moisturizer was made by combing the following ingredients utilizing conventional mixing techniques:

Table 10.

Ingredient	% w/w
1:1 polymer network as prepared in Example 1	2.0
Glycerin USP	5.0
Carbopol 980	1.0
D-panthenol, propylene glycol	1.0
Preservative	1.0
Hydrolyzed protein (and) hyaluronic acid	0.5
Sodium hydroxide.	0.2
USP Purified Water	90

The above ingredients were added and processed as described above for the acne composition. The composition displayed a flowable creamy lotion appearance with excellent emolliency, spreadability and absorption characteristics at room temperature. After heating the formulation to 26°C, the composition thickens to a gel-like consistency. The addition of adjuvants to the composition significantly enhances the polymer network maximum viscosity.

Example 34. Sunscreen Lotion. An oil-free, lubricious sunscreen lotion was made by combining the following ingredients utilizing conventional mixing techniques:

Table 11.

Ingredient	% w/w
1:1 polymer network as prepared in Example 1	2.0
Glycerin USP	8.0
Carbopol 980	1.0
Parsol MCX	7.0
Myristyl Ether Propionate	5.0
Preservative	1.0
Cyclomethicone	1.0
Sodium hydroxide	0.2
USP Purified Water	74

The above ingredients were added and processed as described above for the acne composition. The composition displayed a flowable creamy lotion appearance with excellent emolliency, spreadability and absorption characteristics at room temperature. After heating the formulation to above 26°C, the composition thickened to a gel-like consistency. The addition of adjuvants to the composition significantly enhances the polymer network maximum viscosity.

Example 35. Facial mask. A face mask was made by combing the following ingredients utilizing conventional mixing techniques:

Table 12.

Ingredient	% w/w
1:1 polymer network as prepared in Example 1	1.0
Polyvinyl alcohol	6.0
Polyvinylpyrollidone (20%)	5.0
D-panthenol, propylene glycol	1.25
Propylene glycol	1.25
USP Purified Water	85.5

The above ingredients were added and processed as described above for the acne composition. The composition displayed a flowable creamy lotion appearance with excellent emolliency, spreadability and absorption characteristics at room temperature. After heating the formulation to above 26°C, the composition thickened to a gel-like consistency. The addition of adjuvants to the composition significantly enhances the polymer network maximum viscosity.

<u>Example 36.</u> <u>Facial toner.</u> A face mask was made by combing the following ingredients utilizing conventional mixing techniques:

Table 13.

Ingredient	% w/w
1:1 polymer network as prepared in Example 1	0.01
Hydroxyethyl cetyldimonium phosphate	1.00
PEG-40 hydrogenated caster oil	2.00
D-panthenol, propylene glycol	0.50
Glycerin	2.00
Witch hazel extract	5.00
USP Purified Water	88.49

The above ingredients were added and processed as described above for the acne composition. The composition displayed a flowable appearance with excellent emolliency, spreadability and absorption characteristics at room temperature. After heating the formulation to above 26°C, the composition thickened to a gel-like consistency. The addition of adjuvants to the composition significantly enhances the polymer network maximum viscosity.

Example 36. Solubilization studies of model hydrophobic agents in the poloxamer: poly(acrylic acid) polymer network: estradiol and progesterone. This example is presented to demonstrate the solubilization of a hydrophobic agent in the polymeric network. Progesterone and estradiol were used as the hydrophobic agents in this model solubilization study.

Acrylic acid (99%), fluorescein (98%), β-estradiol (98%), and progesterone (98%) were all obtained from Aldrich and used as received. Pluronic® F127 NF was obtained from BASF. Poly(oxyethylene-b-oxypropylene-b-oxyethylene)-g-poly(acrylic acid) copolymers (responsive polymer network) were synthesized by free-radical polymerization of acrylic acid in the presence of poloxamer as described above. The polymer network copolymers discussed here were composed of about 1:1 ratio of PAA to poloxamer. The rheological properties of polymer network were assessed using LVDV-II+ and RVDV-II+ Brookfield viscometers. The microscopic light scattering of 21 nm poly(styrene) latex particles in deionized water and 1 w% reversibly gelling polymer network was measured using He-Ne laser as described previously (See, Matsuo, E.S., Orkisz, M., Sun, S.-T., Li, Y., Tanaka, T., Macromolecules, 1994, 27, 6791). The solubility of fluorescein and hormones in aqueous solutions was measured by the equilibration of excess solubilizate with the corresponding solution following removal of undissolved species by centrifugation and filtration. Hydrophobic agents were assayed spectrophotometrically at 240 (progesterone) or 280 nm (estradiol), or by using 70/30 w/w H_2SO_4/MeOH (Tsilifonis-Chafetz reagent). In vitro hormone release studies were conducted using thermostatted, vertical Franz cells. Spunbonded polypropylene microfilters (micron retention, 15-20) were used as a membrane separating feed and receiver phases in

Franz cells. The responsive polymer network, water, ethanol, and 20% PEG in water were observed to wet the membrane. The receiver solutions consisted of 20 w% PEG in water (pH 7) and were stirred by magnetic bars. The feed phases composed of responsive polymer network were loaded with either estradiol or progesterone. Each hormone was dissolved in ethanol and the resulting solution was added into the responsive polymer network.

Equilibrium solubility vs. temperature plots for estradiol and progesterone (partition coefficient octanol/water (P) 7200 and 5888, respectively, in aqueous solutions of Pluronic® F127 polyol and responsive polymer network are presented in Figure 22. It can be seen that increasing temperature and concentration (C) of polymers in the solution raises the amount of the hormone dissolved. In Figure 22a, vertical lines represent critical micellar temperatures (CMT) for corresponding Pluronic F127 polyol solutions. It is interesting to note that the slope of the solubility-temperature plots increased as temperature reached CMT, indicating that solubilization in the Pluronic solutions was predominantly due to the formation of micelles. Similar trend was observed in the responsive polymer network solutions. The S values in 5% aqueous solutions of branched PAA did not exceed 15 and 40 μg/mL at 60 °C for estradiol and progesterone, respectively. The solubility values found for responsive polymer network were the same as S in parent Pluronic solutions of equivalent concentrations. Therefore, it may be suggested that solubilization behaviors of the responsive polymer network are governed by the properties of the poloxamer incorporated into it. Thermodynamic parameters of the solubilization process with responsive polymer network were calculated using the same approximations as in the micellar solubilization with Pluronic polyols. See, Saito,Y., Kondo, Y., Abe, M., Sato, T., Chem.Pharm.Bull., 1994, 42, 1348. Namely, partition coefficient P was estimated from equilibrium solubilities of estradiol in responsive polymer network and water:

$$P = S_{SH}/S_W \tag{13}$$

by extrapolating the solubility plots of the steroid in Figure 22 to 100 % responsive polymer network. Using P values obtained from data in Figure 23, we calculated the

standard free energy change (ΔG), standard enthalpy of solubilization (ΔH), and standard entropy of solubilization (ΔS) using the following expressions:

$$\Delta G = -RT\ln P;\ \Delta H = -R\Delta \ln P/\Delta(1/T);\ \Delta S = (\Delta H - \Delta G)/T \qquad (14)$$

Thermodynamic parameters obtained along with P values are given in Table 13. Apparent partition coefficients and thermodynamic parameters for solubilization of estradiol by responsive polymer network.

Table 13.

T, K	P=SSH/S	ΔG kJ/mol	ΔH kJ/mol	ΔS J/mol
277	490	-14.3	4.72	68.6
293	520	-15.2		52.0
310	660	-16.7		53.9
323	660	-17.4		54.0
333	660	-18.0		54.0

Negative ΔG values indicate spontaneous solubilization at all temperatures, whereas positive ΔH shows that the solubilization was endothermic, similar to the solubilization of estriol, as well as indomethacin, by the poloxamer. Notably, ΔS of solubilization was always positive, suggesting that the more ordered water molecules surrounding hydrophobic estradiol molecules moved to the less ordered bulk phase when the estradiol was transferred to the hydrophobic core of PPG segments in responsive polymer network. The aggregation of the PPG segments at elevated temperatures provides not only temporary cross-linking in the gel, but also a thermodynamically "friendly" environment for the hydrophobic drugs. Indeed, one can express the free energy of formation of the aggregate core-water interface in responsive polymer network as:

$$\Delta G = [\sigma P_W(1-\phi) + \sigma W_D\phi](4\pi R^2/n) \qquad (15)$$

where σP_W and σW_D are the interfacial tensions between pure PPO polymer and water and between water and the drug, respectively; ϕ is the volume fraction of the drug within PPO core; R is the effective radius of the core, and n is the aggregation number.

Equation (3) shows that solubilization of a hydrophobic drug of high σWD should increase the stability of the aggregate. The solubilization process was found to decrease the critical micellization concentration and substantially increase the micellar core radius in Pluronic surfactants (Hurter, P.N. *et al.*, "In Solubilization in Surfactant Aggregates", Christian, S.D., Ed., Marcel Dekker, New York, 1995). A similar trend is indicated by the lowering the onset of gelation of the responsive polymer network upon solubilization of fluorescein (LogP 2.1) (Figure 24). The solubilization of hydrophobic drugs by responsive polymer network, analogous to the micellar solubilization of drugs by poloxamer, suggests that the responsive polymer network can be an effective vehicle in drug delivery.

Our in vitro study of hormone release from responsive polymer network shows an increase in the initial transport rate with either decreasing total polymer concentration in the formulation or decreasing temperature (Figure 25). These effects are related to the changes in macroscopic viscosity of the responsive polymer network, which erodes more rapidly from the feed phase through the membrane into the receiver compartment as the viscosity decreases (Figure 26). The degree of the responsive polymer network erosion was measured by weighing hormone-loaded responsive polymer network before and after kinetic experiment.

Figure 27 shows that the relative amount of progesterone penetrating into the receiver phase decreased 4-fold with the increase of total polymer concentration, whereas the total relative amount of progesterone stayed almost constant as total polymer concentration in the responsive polymer network increased. This result shows the existence of two routes of transport of hydrophobic drugs in our model system. Firstly, the drug incorporated into aggregates within the responsive polymer network system can flow through the membrane along with the erosion of the responsive polymer network; secondly, the drug not associated with the responsive polymer network aggregates can diffuse out of the responsive polymer network in the feed phase. The second process should not be related to the viscosity of the responsive polymer network. Indeed, the dynamic light scattering experiment shows no dramatic change of diffusivity of poly(styrene) latex particles in the responsive polymer

network as temperature rises thereby increasing macroscopic viscosity more than 10-fold (Figure 28). This result indicates that the viscosity of the responsive polymer network is essentially unaffected on the microscopic scale.

Appendix A attached.

APPENDIX A

Cosmetic Bench Reference
Function Definitions

Abrasive: abrades, smoothes, polishes

Absorbent powder: takes up liquids, sponge-like action

Absorption base: forms water-in-oil emulsions

Acidulent: acidifies, lowers pH, neutralizes alkalis

Amphoteric: capable of reacting chemically either as an acid or a base; amphoterie surfactants are compatible with anionic and cationic surfactants

Analgesic: relieves pain

Antacid: neutralizes stomach acidity

Antibacterial: destroys/inhibits the growth/reproduction of bacteria

Anti-caking: prevents or retards caking of powders; keeps powders free-flowing

Anti-dandruff: retards or eliminates dandruff

Antifoam: suppresses foam during mixing

Anti-inflammatory: reduces, suppresses, counteracts inflammation

Anti-irritant: reduces, suppresses or prevents irritation

Antimicrobial: destroys, inhibits or suppresses the growth of microorganisms

Antioxidant: inhibits oxidation and rancidity

Antiperspirant: reduces or inhibits perspiration

Antipruritic: reduces or prevents itching

Antiseptic: inhibits the growth of microorganisms on the skin or on living tissue

Antistat: reduces static by neutralizing electrical charge on a surface

Astringent: contracts organic tissue after application

Binder: promotes cohesion of powders

Bleaching agent: lightens color, oxidizing agent

Botanical: natural plant derivative

Buffer: helps maintain original pH (acidity or basicity) of a preparation

Carrier: a vehicle or base used for a preparation

Chelate: form a complex with trace-metal impurities, usually calcium or iron

Colorant: adds color, may be a soluble dye or an insoluble pigment

Conditioner: improves condition of skin and hair

Coupling agent: aids in solubilization or emulsification of incompatible components

Decolorant: removes color by adsorption, bleaching or oxidation

Denaturant: used to denature ethyl alcohol

Dental powder: powdered dentifrice

Deodorant: destroys, masks or inhibits formation of unpleasant odors

Depilatory: removes hair chemically

Detergent: a surface-active agent (surfactant) that cleans by emulsifying oils and suspens particulate soil

Disinfectant: destroys pathogenic microorganisms

Dispersant: promotes the formation and stabilization of a dispersion or suspension

Dye stabilizer: see Stabilizer

Emollient: softens, smoothes skin

Emulsifier: a surface-active agent (surfactant) that promotes the formation of water-in-oil or oil-in-water emulsions

Enzymes: complex proteins produced by living cells that catalyze biochemical reactions at body temperature

Fiber: strands of natural or synthetic polymers: for instance, cotton, wool, silk, nylon, polyester

Film former: solution of a polymer that forms films when the solvent evaporates after application to a surface

Fixative: fixes or sets perfumes; retards evaporation; promotes longer lasting aroma

Flavor: imparts a characteristic taste (and aroma) to edible foods and drinks; sometimes used in lip products

Foam booster: enhances quality and quantity of lather of shampoos

Foamer: a surface-active agent (surfactant) that produces foam; an emulsion of air-in-water

Foam stabilizer: see Foam booster

Fungicide: inhibits or destroys growth of fungi

Gellant: a gelling agent; forms gels; includes a wide variety of materials such as polymers, clays and soaps

Glosser: furnishes a surface luster or brightness; usually used in lip or hair products

Hair colorant: see Colorant

Hair conditioner: see Conditioner

Hair dye: imparts a new permanent or semi-permanent color to hair

Hair-set polymer: polymer and/or resins used to maintain desired hair shape

Hair-set resin: see Hair-set polymer

Hair waving: see Reducing agent and Neutralizer

Humectant: absorbs, holds and retains moisture

Hydrotrope: enhances water solubility

Intermediate: basic chemicals which are chemically modified to obtain the desired function

Lathering agent: a surface active agent (surfactant) that forms a foam or lather on mixing with air in solution; see also Foamer

Lubricant: reduces friction, smoothes, adds slip

Moisture barrier: retards passage of moisture or water

Moisturizer: aids in increasing the moisture content of the skin through humectant or barrier action

Neutralizer: an oxidizing agent used in hair waving that stops the action of the reducing agent and re-establishes the disulfide linkages in hair

Oil absorbent: see Absorbent powder

Ointment base: an anhydrous mixture of oleaginous components used as a vehicle for medicaments

Opacifier: opacifies clear liquids or solids

Oxidant: oxidizing agent, neutralizes reducing agents, bleaching agent

Pearlant: imparts a pearlescent texture and luster

Perfume solvent: see Solvent and Solubilizer

Peroxide stabilizer: see Stabilizer

Pigment: a finely powdered insoluble substance used to impart color, luster or opacity

Plasticizer: plasticizes (makes more flexible) polymeric films or fibers

Polish: smoothes; adds gloss and luster

Polymer: a very high molecular weight compound consisting of repeating structural units

Powder: a solid in the form of fine particles

Preservative: protects products from spoilage by microorganisms

Propellant: pressurized gas in a container used to expel the contents when pressure is released by opening a valve

Protein: naturally occurring complex combinations of amino acids

Reducing agent: reduces a chemical compound usually by donating electrons; neutralizes oxidizing agents

Refatting agent: adds oils materials to the surface of substrates, e.g., skin and hair

Resin: nonvolatile solid or semisolid organic substances obtained from plants as exudates to prepared by polymerization of simple molecules

Sequestrant: forms coordination complexes with multivalent positive ions

Silicone: polymeric organic silicon compounds which are water resistant

Skin protectant: protects skin from environmental

Solubilizer: solubilizes, usually into aqueous vehicles, normally insoluble materials, such as fragrances, flavors, oils, etc.

Solvent: usually liquids capable of dissolving other substances

Stabilizer: added to stabilize emulsions and/or suspensions

Stimulant: produces a temporary increase in the functional activity of an organism or any of its parts

Surfactant (surface-active agent): lowers surface tension between two or more incompatible phases; soaps, detergents, wetting agents, solubizing agents and emulsifying agents are typical surfactants; surfactants are classified as anionic, cationic, nonionic and amphoteric; anionic surfactants are negatively charged, cationic surfactants have no electrical charge

Suspending agent: keeps finely divided solid particles in suspension

Sweetener: sweetens to provide a more pleasant taste

Tanning accelerator: accelerates the tanning of skin

Thickener: thickens or increases viscosity/consistency

Thixotrope: the property of certain gels and emulsions of becoming more fluid or less viscous when shaken or stirred

UV absorber: used as a sunscreen and to protect preparations from degradation by UV radiation

UVA absorber: absorbs in the range 320–400 nanometers (nm)

UVB absorber: absorbs in the range 290-320 nanometers (nm)

Wax: any of numerous substances of plant, animal or synthetic origin that contain principally esters of higher fatty acids and higher fatty alcohols; free fatty alcohols, fatty acids and hydrocarbons may also be present; waxes derived from petroleum products are mainly high-molecular-weight hydrocarbons

Wetting agent: a surface-active agent (surfactant) that lowers the surface and interfacial tension, facilitating the wetting of surfaces

Functions

Abrasive
Adzuki beans
Almond (Prunus amygdalus) meal, shell granules
Aluminum silicate
Apricot (Prunus armeniaca) kernel powder, shells
Hydrated silica
Jojoba (Buxus chinensis) seed powder
Luffa cylindrica
Olive stone granules
Oyster shell powder
Peach (Prunus persica) pit powder
Peach (Prunus persica) stone granules
Polyethylene
Polyethylene HEC granules
Polyethylene oxidized, P. spheres
Polystyrene
Pumice
Rice (Oryza sativa) bran
Silica and S. colloidal
Sodium chloride
Walnut (Juglans regia) shell powder

Absorption base
1,2,6-Hexanetriol
Kaolin
Petrolatum
Rice (Oryza sativa) starch
Soy (Glycine soja) sterol
Zeolite

Absorbent powder
Corn (Zea mays) starch
Maltodextrin
Nylon-12
Oat (Avena sativa) bran, flour, meal
Zeolite

Acidulent
Acetic acid
Citric acid
Fumaric acid
Glutamic acid
Glycolic acid
Hydrochloric acid
Lactic acid
Nitric acid
Phosphoric acid
Sodium bisulfate
Sulfuric acid
Tartaric acid

AHA
Apple (Pyrus malus) extract
Apricot (Prunus armeniaca) kernel powder
Citric acid
Ethyl lactate
Glycolic acid
Lactic acid
Malic acid
Sodium lactate
Tartaric acid

Antiacne
Clays (white, yellow, red, green, pink)
Perfluorodecalin
Salicylic acid
Sulfur

Anti-aging
Basil (Ocimum basilicum) extract
Carrot (Daucus carota) extract
Catalpa kaempfera extract
Ceramide 33 (liquid soy extract)
Crataegus cuneata extract
Eugenia jambolana extract
Fomes fometarius extract
Fomistopsis pinicola extract
Ganoderma lucidum oil
Ginseng (Panax ginseng) extract
Hyaluronic acid
Hydrolyzed serum protein
Hydrolyzed soy flour
Isachne pulchella extract
Lactoferrin
Lady's Thistle (Silybum marianum) extract
Ligusticum jeholense extract
Marine collagen
Mushroom (Coriolus versicolor) extract
Musk rose (Rosa moschata) oil
Perfluorodecalin
Quaternium-51
Rubus thunbergii extract
Serum protein
Stenocalyx micalii extract
Tricholoma matsutake extract

Antibacterial
Ammonium iodide
Chlorhexidine
Chlorhexidine diacetate, C. digluconate
Chlordexidine dihydrochloride
Chlorphenesin
Hexamidine diisethionate
Hexetidine
Iceland moss (Cetraria islandica) extract
Lactoferrin
Lauralkonium bromide, L. chloride
Lauryltrimonium chloride
Laurylpyridinium chloride
Mauritiella armata extract
Mushroom (Cordyceps sabolifera) extract
Orange blossom extract
Orange (Citrus aurantium dulcis) peel extract
PEG-42 Ebiriko ceramides extract
Peppermint (Mentha piperita) extract
Philodendron (Phellodendron amurense) extract
Pine (Pinus sylvestris) needle extract
Polymethoxy bicyclic oxazolidine
Quaternium 73
Rubus thunbergii extract
Tea tree (Melaleuca alternifolia) oil
Triclocarban
Undecylenic acid

Anticaking
Aluminum starch octenylsuccinate
Calcium stearate
Distarch phosphate
Hydrated silica

Functions

Kaolin
Magnesium myristate, M. silicate
Polyethylene, micronized
Silica silylate
Sodium aluminum silicate
Zinc stearate

Anticaries agent
Cetylamine hydrofluoride
Olaflur
Sodium fluoride
Stearyl trihydroxyethyl propylenediamine dihydrofluoride

Anticellulite
Aminophylline
Bladderwrack (Fucus vesiculosus) extract
Butcherbroom (Ruscus aculeatus) extract
Carcinia cambogia extract
Fomes fometarius extract
Fomistopsis pinicola extract
Ivy extract
Mushroom (Coriolus versicolor) extract
TEA-hydroiodide
Tricholoma matsutake extract

Antidandruff
Burdock (Arctium lappa) extract
Chloroxylenol
Corydalis ambigua extract
Disodium undecylenamido MEA-sulfosuccinate
Ginger root extract
Inga edulis extract
Mauritiella armata extract
Myristalkonium saccharinate
PEG-6 undecylenate
Piroctone olamine
Resorcinol
Rosemary (Rosmarinus officinalis) extract
Sodium shale oil sulfonate
Stenocalyx micalii extract
Undecylenamide DEA
Willow (Salix alba) bark extract
Zinc pyrithione

Antifungal
Black walnut (Juglans nigra) extract
Coneflower (Echinacea angustifolia) extract
Orange blossom extract
Pfaffia paniculata extract

Anti-inflammatory
Allantoin polygalacturonic acid
Bisabolol
Black poplar (Populus nigra) extract
Brassica rapa-depressa extract
Butcherbroom (Ruscus aculeatus) extract
Calendula officinalis extract
Catalpa kaempfera extract
Celastrus paniculata extract
Ceramide 33 (liquid soy extract)
Chaparral (Larrea mexicana) extract
Coneflower (Echinacea angustifolia) extract
Cornflower (Centaurea cyanus) extract
Dipotassium glycyrrhizinate
Euphotorium fortunei extract
Euphrasia officinalis extract
Ficus racemosa extract
Golden seal (Hydrastis canadensis) root extract
Guaiazulene
Horse chestnut (Aesculia hippocastanum) extract
Jujube (Zizyphus jujuba) extract
Laminaria japonica extract
Licorice (Glycyrrhiza glabra) extract
Ligusticum jeholense, L. lucidum extract
Matricaria (Chamomilla recutita) extract
Melaleuca uncinata extract
Melia azadirachta extract
Mulberry (Morus nigra) extract
Niacinamide ascorbate
Orange (Citrus aurantium dulcis) peel extract
Orange blossom extract
Palmetto extract
Palmitoyl collagen amino acids
Passion flower (Passiflora laurifolia) fruit extract
Paulownia imperialis extract
Salicylic acid
Shea butter (Butyrospermum parkii)
Sodium carboxymethyl beta-glucan
Soy (Glycine soja) protein
Stearyl glycyrrhetinate
Steaocalyx micalii extract
Tocopheryl acetate, T. nicotinate
Trichomonas japonica extract
Willow (Salix alba) extract
Witch hazel (Hamamelis virginiana) extract
Withania somniferum extract
Yarrow (Achillea millefolium) extract
Zinc lactate

Anti-irritant
Acetyl monoethanolamine
Allantoin
Allantoin acetyl methionine, A. glycyrrhetinic acid
Azelamide MEA
Betaine
Calendula officinalis extract
Cocamidopropyl betaine
Coceth-7 carboxylic acid
Cornflower (Centaurea cyanus) extract
Diisostearyl dimer dilinoleate
Dipalmitoyl cystine
Green tea extract
Hydrolyzed sweet almond protein
Hydroxypropyltrimonium gelatin
Lauroyl collagen amino acids
l-Lysine lauroyl methionine
Mallow extract
Matricaria (Chamomilla recutita) extract
Palmitoyl hydrolyzed milk protein
Palmitoyl hydrolyzed wheat protein
Palmitoyl keratin amino acids
PEG-12 palm kernel glycerides
PEG-28 glyceryl tallowate
PEG-30 glyceryl monococoate
PEG-60 almond glycerides
PEG-78 glyceryl cocoate
PEG-82 glyceryl tallowate
PEG-200 glyceryl tallowate
Propionyl collagen amino acids
PVP
Saccharomyces lysate extract
Sodium C12-15 pareth-15 sulfonate
Sodium lauroamphoacetate
Soy (Glycine soja) protein
Undecylenoyl collagen amino acids
Valerian (Valeriana officinalis) extract

Antimicrobial
Benzalkonium chloride
Benzoic acid
Benzyl alcohol
Bromochlorophene
2-Bromo-2-nitropropane-1,3-diol
Butylparaben
Capryloyl collagen amino acids
Capryloyl glycine, C. keratin amino acids
Captan
Cetethyldimonium bromide
Cetyl pyridinium chloride
Chlorothymol
Chloroxylenol
Citron oil
Copper PCA
Dichlorobenzyl alcohol
Dilauryldimonium chloride
Domiphen bromide
Ethylparaben
Eucalyptus (Eucalyptus globulus) extract
Fennel (Foeniculum vulgare) extract
Garlic (Allium sativum) extract
Glyceryl caprylate, G. laurate
Hexamidine diisethionate
Hinokitiol
Honeysuckle (Lonicera caprifolium) extract
Lichen (Usnea barbata) extract
Myristalkonium chloride
Pentylene glycol
Phenethyl alcohol
Phenol
Phenoxyethanol
Phenoxyisopropanol
Phenyl mercuric acetate, P.m. benzoate, P.m. borate
o-Phenylphenol
Polymethoxy bicyclic oxazolidine
Potassium sorbate
Propylparaben
Ricinoleamodopropyltrimonium ethosulfate
Sage (Salvia officinalis) extract
Sodium benzoate, S. pyrithione
Sodium ricinoleate, S. shale oil sulfonate
Thimerosal
Thyme (Thymus vulgaris) extract
Thymol
Triclocarban
Triclosan
Undecylenamidopropyltrimonium methosulfate
Undecylenic acid
Zinc oxide, Z. PCA
Zinc pyrithione, Z. undecylenate

Antioxidant
Ascorbic acid
A. polypepride
Ascorbyl oleate, A. palmitate
Beta-carotene
BHA
BHT
t-Butyl hydroquinone
Dilauryl thiodipropionate
Dimyristyl thiodipropionate
Disodium EDTA
Distearyl thiodipropionate
Dodecyl gallate
EDTA
Erythorbic acid
Ferulic acid
Grape (Vitis vinifera) seed extract
Green tea extract
HEDTA
Hydroquinone
Hydroquinone-beta-D-glucopyranoside
p-Hydroxyanisole
Lactoferrin
Lysine PCA
Melanin
Methyl gallate
Niacinamide ascorbate
Nordihydroguaiaretic acid
Oat (Avena sativa) extract
Oryzanol
Pentasodium pentetate
Pentetic acid
Propyl gallate
Retinyl palmitate polypeptide
Rosemary (Rosmarinus officinalis) extract
Saccharomyces lysate extract
Sage (Salvia officinalis) extract
Sodium ascorbate, S. erythorbate
Sodium metabisulfite
Sodium selenate, S. sulfite
Superoxide dismutase
Tea (Camillia sinensis) extract
Tetrasodium EDTA
Tocopherol

Functions

Tocopheryl acetate, T. linoleate
Wild marjoram (Origanum vulgare) extract
Yeast (Saccheromyces cerevisiae) extract (Faex)

Antiperspirant
Allantoin-aluminum chlorhydrate
Aluminum capryloyl hydrolyzed collagen
Aluminum chlorhydrex-gly, A. chloride
Aluminum chlorohydrate, A. chlorohydrex
Aluminum PCA, A. sesquichlorohydrate
Aluminum undecylenoyl collagen amino acids
Aluminum zirconium pentachlorhydrate
Aluminum zirconium tetrachlorohydrate
Aluminum zirconium tetrachlorohydrex GLY
Aluminum zirconium trichlorohydrate
Aluminum-zirconium-glycine powder
Sage (Salvia officinalis) extract
Tormentil (Potentilla erecta) extract
Zirconium chlorohydrate

Antiseptic
Aluminum PCA
Azadirachta indica extract
2-Bromo-2-nitropropane-1,3-diol
Calendula amurrensis extract
p-Chloro-m-cresol
Clove (Eugenia caryophyllus) oil
Crataegus cuneata extract
Dichlorobenzyl alcohol
Entada phaseoloides extract
Eucalyptus (Eucalyptus globulus) extract
Golden seal (Hydrastis canadensis) root extract
Hexachlorophene
Melia australasica, M. azadirachta extract
Methyl salicylate
Orange (Citrus aurantium dulcis) peel extract
Oxyquinoline sulfate
Pfaffia paniculata extract
Potassium abietoyl hydrolyzed collagen
PVP-iodine
Silver nitrate
Sodium salicylate
Sterculia platanifolia extract
Tea tree (Melaleuca alternifolia) oil
Tormentil (Potentilla erecta) extract
Xanthozylum bungeanum extract

Antistat
Acetamide MEA
Acetamidopropyl trimonium chloride
6-(N-Acetylamino)-4-oxyhexyltrimonium chloride
Alkyl dimethyl betaine
Babassuamidopropalkonium chloride
Behenamidopropyl ethyldimonium ethosulfate
Behenamidopropyl hydroxyethyl dimonium chloride
Carboxymethyl chitin
Cetethyl morpholinium ethosulfate
Cetrimonium chloride
Chitin
Chitosan
Cocamidopropyl ethyldimonium ethosulfate
Cocodimonium hydroxypropyl hydrolyzed rice protein
Cocodimonium hydroxypropyl hydrolyzed soy protein
Dimethicone hydroxypropyl trimonium chloride
Dimethyl behenamine, D. cocamine
Dimethyl palmitamine, D. soyamine
Dimethyl tallowamine
Dioleylamidoethyl hydroxyethylmonium methosulfate
Dipalmitoylethyl hydroxyethylmonium methosulfate
N-Dodecyl-N,N-dimethyl-N-(dodecyl acetate) ammonium chloride
Erucamidopropyl hydroxysultaine
Glyceryl monopyroglutamate
Hydrogenated tallowamine oxide
Isostearamidopropyl dimethylamine
Lactamidopropyl trimonium chloride
Lauryldimonium hydroxypropyl hydrolyzed collagen
Linoleamidopropyl dimethylamine dimer dilinoleate
Olealkonium chloride
PEG-2 cocamine
PEG-2 cocomonium chloride
PEG-2 oleammonium chloride
PEG-8 caprylic/capric glycerides
PEG-10 cocamine
PEG-15 soyamine
PPG-9 diethylmonium chloride
PPG-25 diethylmonium chloride
PPG-40 diethylmonium chloride
Propylene glycol stearate
Quaternium-26, -27, -53, -62, -72
Rapeseedamidopropyl benzyldimonium chloride
Rapeseedamidopropyl epoxypropyl dimonium chloride
Silica, colloidal
Sorbitan caprylate
N-Soya-(3-amidopropyl)-N,N-dimethyl-N-ethyl ammonium ethyl sulfate
Soyethyl morpholinium ethosulfate
Soyethyldimonium ethosulfate
Stearalkonium chloride
Stearamidopropyl benzyl dimonium chloride
Stearamidopropyl ethyldimonium ethosulfate
Steartrimonium chloride
N-Stearyl-(3-amidopropyl)-N,N-dimethyl-N-ethyl ammonium ethyl sulfate
Wheat germamidopropyl ethyldimonium ethosulfate

Astringent
Aluminum citrate, A. lactate
Astragalus sinicus extract
Astrocaryum murumuru, A. tucuma extract
Azadirachta indica extract
Azelamide MEA
Bearberry (Arctostaphylos uva-ursi) extract
Birch (Betula alba) leaf extract
Catalpa kaempfera extract
Celastrus paniculata extract
Coccinea indica extract
Coffee (Coffea arabica) bean extract
Euphrasia officinalis extract
Euterpe precatoria extract
Evening primrose (Oenothera biennis) extract
Gentian (Gentiana lutea) extract
Geranium maculatum extract
Grape (Vitis vinifera) leaf extract
Henna (Lawsonia inermis) extract
Hierochloe odorata extract
Honeysuckle (Lonicera caprifolium) extract
Hops (Humulus lupulus) extract
Horsetail extract
Hypericum perforatum extract
Ivy extract
Juniperus communis extract
Kadsura heteliloca extract
Kola (Cola acuminata) extract
Lady's mantle (Alchemilla vulgaris) extract
Lemon (Citrus medica limonum) extract, peel extract
Lemon bioflavonoids extract
Lysimachia foenum-graecum extract
Magnolia spp. extract
Mauritia flexosa extract
Maximilliana regia extract
Melaleuca uncinata, M. wilsonii extract
Melia australasica extract
Nettle (Urtica dioica) extract
Oak (Quercus) bark extract
Ocimum basilicum, O. santum extract
Palmetto extract
Passion flower (Passiflora laurifolia) fruit extract
Plantain (Plantago major) extract
Polygonum multiflorum extract
Pterocarpus marsupianus extract
Raspberry (Rubus) extract
Sambucus nigra oil
Sanguisorbae root extract
Selinum spp. extract
Shorea robusota extract
Tannic acid
Walnut (Juglans regia) leaf extract, oil
Wheat (Triticum vulgare) protein
White nettle (Lamium album) extract
Witch hazel (Hamamelis virginiana) extract
Xanthozylum bungeanum extract
Zinc lactate
Ziziphus jujuba extract

Binder
Aluminum starch octenylsuccinate
Boron nitride
C20-40, C30-50, C40-60 alcohols
Calcium stearate
Cellulose gum
Dihydroabietyl behenate
Diisostearyl malate
Dioctyl sebacate
Distarch phosphate
Ethylcellulose
Gellan gum
Hydrogenated jojoba oil
Isocetyl alcohol, I. palmitate
Isopropyl isostearate
Isostearyl erucate, I. isostearate
Isostearyl neopentanoate
Maltodextrin
Methylcellulose
Microcrystalline cellulose
Octyl palmitate
Octyldodecyl myristate
bis-Octyldodecyl stearoyl dimer dilinoleate
Octyldodecyl stearoyl stearate
Oleyl oleate
PEG-20, -75, -150, -240, -350
Polydipentene
Polyethylene; P., micronized
PTFE
PVP
Sorbitol
Synthetic wax
Tapioca dextrin
Tridecyl behenate, T. neopentanoate
Tridecyl stearoyl stearate
Trisodium HEDTA

Biol. polymer
Distarch phosphate
Dog rose (Rosa canina) seed extract
Hydrogen peroxide
Kojic acid
Mulberry (Morus nigra) extract
Sanguisorbae root extract

Botanical
Acacia
Acacia farnesiana extract
Agrimony (Agrimonia eupatoria) extract
Alder (Alnus firma) extract
Alfalfa (Medicago sativa) extract
Algae (Ascophyllum nodosum) extract
Algae (Lithotamnium calcarum) extract
Aloe barbadensis, A.b. extract
Aloe capensis extract
Alpine Veronica extract
Althea officinalis extract
Angelica archangelica extract
Anise (Pimpinella anisum) extract
Apple (Pyrus malus) extract
Apricot (Prunus armeniaca) extract
Arnica montana extract
Artemisia capillaris extract
Artichoke (Cynara scolymus) extract
Asafetida (Ferula assa foetida) extract
Asiasarum sieboldi extract

Functions

Asparagus officinalis extract
Astragalus sinicus extract
Avens (Geum rivale) extract
Avocado (Persea gratissima) extract
Balm mint (Melissa officinalis) extract, oil extract
Banana (Musa sapientum) extract
Barley (Hordeum vulgare) extract
Basil (Ocimum basilicum) extract
Bearberry (Arctostaphylos uva-ursi) extract
Bee pollen extract
Beet (Beta vulgaris) extract
Betaglucan
Bilberry (Vaccinium myrtillus) extract
Bioflavonoids
Birch (Betula alba) bark extract, leaf extract
Birch (Betula platyphylla japonica) extract
Bitter orange (Citrus aurantium amara) extract, flower extract, peel extract
Black cohosh (Cimicifuga racemosa) extract
Black currant (Ribes nigrum) extract
Black hennu extract
Black poplar (Populus nigra) extract
Black walnut (Juglans nigra) extract
Bladderwrack (Fucus vesiculosus) extract
Borage (Borago officinalis) extract
Buckthorn (Frangula alnus) extract
Burdock (Arctium luppa) extract
Burdock (Arctium minus) root extract
Burnet extract
Butcherbroom (Ruscus aculeatus) extract
Cabbage rose (Rosa centifolia) extract
Calamus (Acorus calamus) extract
Calendulu officinulis extract
Caper (Capparis spinosa) extract
Capsicum frutescens extract, C.f. oleoresin
Caraway (Carum carvi) extract
Carrageenan (Chondrus crispus)
Carrot (Daucus carota) extract
Carrot (Daucus carota sativa) oil
Cassia auriculata extract
Celandine (Chelidonium majus) extract
Chamomile (Anthemis nobilis) extract, oil
Chaparral (Larrea mexicana) extract
Cherry (Prunus speciosa) leaf extract
Cherry bark, C.b. extract
Chestnut (Castanea sativa) extract
Chinese hibiscus (Hibiscus rosa-sinensis) extract
Chlorella vulgaris extract
Cimicifuga foenda rhizome extract
Cinchona succirubra extract
Citroflavonoid, water soluble
Citrus bioflavonoid complex
Clary extract
Clove (Eugenia caryophyllus) extract
Clover (Trifolium pratense) extract
Cnidium officinale rhizome extract, C.o. water
Coffee (Coffea arabica) bean extract
Colloidal oatmeal
Coltsfoot (Tussilago farfara) leaf extract
Comfrey (Symphytum officinale) leaf extract
Condurango extract
Coneflower (Echinacea angustifolia) extract
Corallina officinalis
Corchorus olitorius extract
Coriander (Coriandrum sativum) extract
Corn (Zea mays) cob powder, silk extract
Corn poppy (Papaver rhoeas) extract
Cornflower (Centaurea cyanus) extract
Couch (Agropyron repens) grass
Crataegus monogina extract
Crithmum maritimum extract
Cucumber (Cucumis sativus) extract
Cypress (Cupressus sempervirens) extract
Dandelion (Taraxacum officinale) extract
Date (Phoenix dactylifera) extract
Dead Sea Mud, Salts
Dog rose (Rosa canina) hips extract
Dyer's broom extract
Eleuthero ginseng (Acanthopanax senticosus) extract
Elm (Ulmus campestris) extract
Eucalyptus (Eucalyptus globulus) extract
Eucalyptus globulus oil
Eucommia ulmoides extract
Euphrasia officinalis extract
Evening primrose (Oenothera biennis) extract, oil
Everlasting (Helichrysum arenarium) extract
Fennel (Foeniculum vulgare) extract
Fenugreek extract
Fermented rice (Oryza sativa) extract
Fern (Dryopteris filix-Mas) extract
Fig (Ficus carica) extract
Fir needle extract
Fumitory (Fumaria officinalis) extract
Gardenia florida extract
Garlic (Allium sativum) extract
Gelidium cartilagineum
Gentian (Gentiana lutea) extract
Geranium maculatum extract
Ginger root extract
Ginkgo biloba extract
Ginseng (Panax ginseng) extract
Glycyrrhetinic acid
Glycyrrhizic acid
Glycyrrhizin, ammoniated
Golden seal (Hydrastis canadensis) root extract
Goldthread (Coptis japonica) extract
Gotu kola extract
Grape (Vitis vinifera) distillate, extract
Grape (Vitis vinifera) leaf, seed extract
Grape skin extract
Grapefruit (Citrus grandis) peel extract
Green bean (Phaseolus lunatus) extract
Ground Ivy (Glechoma hederacea) extract
Guarana (Paullinia cupana) extract
Harpagophytum procumbens extract
Hayflower extract
Hazel (Corylus avellana) nut extract
Henna (Lawsonia inermis) extract
Hesperidin, H. methyl chalcone
Hibiscus sabdariffa extract
Hibiscus syriacus extract
High beta-glucan barley flour
Honeysuckle (Lonicera caprifolium) extract
Honeysuckle (Lonicera japonica) leaf extract
Hops (Humulus lupulus) extract
Horse chestnut (Aesculia hippocastanum) extract
Horseradish (Cochlearia armoracia) extract
Horsetail extract
Houttuynia cordata extract
Hyacinth (Hyacinthus orientalis) extract
Hydrocotyl (Centella asiatica) extract
Hydrolyzed oat protein, soy flour
Hypericum perforatum extract
Hyssop (Hyssopus officinalis) extract
Indian cress (Tropaeolum majus) extract
Isodonis Japonicus extract
Ivy extract
Japanese angelica (Angelica acutiloba) extract, water
Japanese hawthorn (Crataegus cuneata) extract
Jasmine (Jasminum officinale) extract
Job's tears (Coix lacryma-jobi) extract
Jojoba (Buxus chinensis) seed powder
Juniperus communis extract
Kelp (Macrocystis pyrifera) extract
Kiwi (Actinidia chinensis) fruit extract, seed oil
Kola (Cola acuminata) extract
Krameria triandra extract
Lady's mantle (Alchemilla vulgaris) extract
Lady's Thistle (Silybum marianum) extract
Laurel (Laurus nobilis) extract
Lavender (Lavandula angustifolia) extract, water
Lemon (Citrus medica limonum) extract, juice extract, peel extract
Lemon bioflavonoids extract
Lemongrass (Cymbopogon schoenanthus) extract
Leopard flower (Belamcanda chinensis) root extract
Lettuce (Lactuca scariola sativa) extract
Licorice (Glycyrrhiza glabra) extract
Lilac (Syringa vulgaris) extract
Linden (Tilia argentea) extract
Linden (Tilia cordata) extract, water
Loquat (Eriobotrya japonica) leaf extract
Maidenhair fern extract
Magnolia kobus extract
Mallow extract
Mandragora officinurum extract
Mannan
Marigold
Marine silts
Matricaria (Chamomilla recutita) extract
Meadowsweet (Spiraea ulmaria) extract
Melon (Cucumis melo) extract
MEA iodine
Mistletoe (Viscum album) extract
Mugwort (Artemisia princeps) extract, water
Mulberry (Morus alba) root extract
Mulberry (Morus bombysis) root extract
Mushroom extract
Myrrh (Commiphora myrrha) extract
Nasturtium extract
Neroli extract
Nettle (Urtica dioica) extract
Oak (Quercus) bark extract
Oak root extract
Oat (Avena sativa) bran, bran extract, flour, protein
Oat flower
Olive (Olea europa) extract, leaf extract
Onion (Allium cepa) extract
Orange blossom extract
Orange (Citrus aurantium dulcis) flower extract, peel extract
Pansy (Viola tricolor) extract
Papaya (Carica papaya) extract
Parsley (Carum petroselinum) extract
Passion flower (Passiflora laurifolia) fruit extract
Passionflower (Passiflora incarnata) extract
Pea (Pisum sativum) extract
Peach (Prunus persica) extract, leaf extract
Pelargonium capitatum extract
Pellitory (Parietaria officinalis) extract
Pennyroyal (Mentha pulegium) extract
Peony (Paeonia albaflora) extract
Peony (Paeonia obovata) root extract
Peppermint (Mentha piperita) extract, oil
Perilla ocymoides extract
Periwinkle (Vinca minor) extract
PEG-80 jojoba acid/alcohol
PEG-120 jojoba acid/alcohol

Functions

Pfaffia paniculata extract
Phellodendron amurense extract
Phospholipids
Pimento (Pimenta officinalis) extract
Pine (Pinus sylvestris) cone, needle extract
Pineapple (Ananas sativus) extract
Plantain (Plantago major) extract
Pollen extract
Pongamol
Poria Cocos extract
Pueraria lobota extract
Queen of the meadow extract
Quillaja saponaria extract
Quince (Pyrus cydonia) seed extract
Quinoa (Chenopodium quinoa) extract
Raspberry (Rubus) extract
Rauwolfia (Serpentina) extract
Red clover
Rehmannia chinensis extract
Restharrow (Ononis spinosa) extract
Rhododendron chrysanthum extract
Rhodophycea extract
Rhubarb (Rheum palmatum) extract
Rice (Oryza sativa) bran extract
Rice fatty acid
Rose (Rosa multiflora) extract
Rosemary (Rosmarinus officinalis) extract
Rubia tinctorum extract
Safflower (Carthamus tinctorius) extract
Sage (Salvia officinalis) extract, water
Sambucus nigra berry extract, extract
Sandalwood (Santalum album) extract
Sanguinaria canadensis extract
Saponaria officinalis extract
Sasa veitchii extract
Saxifraga sarmentosa extract
Scabiosa arvensis extract
Scutellaria baicalensis root extract
Silk extract
Silver fir (Abies pectinata) extract
Sisal (Agave rigida) extract
Slippery elm extract
Soapberry (Sapindus mukurossi) extract
Sophora angustifolia extract
Sophora flavescens root extract
Sophora japonica extract
Soybean (Glycine soja) extract
Soy (Glycine soja) germ extract, protein, sterol
Spearmint (Mentha viridis) extract, oil
Spinach (Spinacia oleracea) extract
Spiraea ulmaria extract
Sunflower (Helianthus annuus) seed extract
Sweet almond (Prunus amygdalus dulcis) extract
Sweet cherry (Prunus avium) extract
Sweet cicely (Anthriscus cerefolium) extract
Sweet clover (Melilotus officinalis) extract
Sweet violet (Viola odorata) extract
Swertia chirata extract
Tea (Camillia sinensis) extract
Thistle (Chicus benedictus) extract
Thyme (Thymus vulgaris) extract
Tomato (Solanum lycopersicum) extract
Tormentil (Potentilla erecta) extract
Tuberose (Polianthes tuberosa) extract
Turmeric (Curcuma longa) extract
Valerian (Valeriana officinalis) extract
Walnut (Juglans regia) extract, leaf extract
Water Lily (Nymphaea alba) root extract
Watercress (Nasturtium officinale) extract
Wheat (Triticum vulgare) extract, protein
Wheat (Triticum vulgare) germ extract
Wheat bran lipids
White ginger (Hedychium coronarium) extract
White nettle (Lamium album) extract
Wild agrimony (Potentilla anserina) extract
Wild cherry (Prunus serotina) bark extract
Wild indigo (Baptista tinctoria)
Wild marjoram (Origanum vulgare) extract
Willow (Salix alba) bark extract, extract
Willow (Salix alba) leaf extract
Witch hazel (Hamamelis virginiana) extract
Yarrow (Achillea millefolium) extract
Yeast (Saccheromyces cerevisiae) extract (Faex)
Yucca vera extract
Zanthoxylum piperitum extract
Zedoary (Curcyma zedoraria) oil

Buffer
Ammonium carbonate, A. phosphate
Calcium hydroxide, C. phosphate
Citric acid
Ethanolamine HCl
Glycine
Phosphoric acid
Potassium phosphate
Potassium sodium tartrate
Sodium acetate, S. citrate
Sodium lactate, S. phosphate
Succinic acid
Tromethamine

Carrier
Acrylates copolymer, spherical powder
Arginine
Caprylic/capric triglyceride
Caprylic/capric/lauric triglyceride
Caprylic/capric/linoleic triglyceride
Caprylic/capric/oleic triglycerides
Ceteareth-20
Coconut (Cocos nucifera) oil
Cyclodextrin
Dipropylene glycol
Glyceryl caprylate, G. caprylate/caprate
Hydrated silica
Liposomes
Magnesium silicate
Methyl propanediol
PEG-8/SMDI copolymer
Potassium chloride
PPG-12/SMDI Copolymer
PPG-51/SMDI Copolymer
Propylene carbonate, P. glycol
Serum albumin
Sodium carboxymethyl beta-glucan
Sodium chloride
Sodium magnesium silicate
Tapioca dextrin

Chelators
beta-Alanine diacetic acid
Calcium disodium EDTA
Disodium EDTA, -copper
EDTA
HEDTA
Malic acid
Monostearyl citrate
Pentasodium pentetate
Pentetic acid
Phytic acid
Potassium aspartate
Sodium aspartate
Sodium dihydroxyethylglycinate
Sodium hexametaphosphate
Tetrahydroxypropyl ethylenediamine
Tetrasodium EDTA
Tripotassium EDTA
Trisodium EDTA, HEDTA

Cell stimulant
Aesculus chinensis extract
Artemisia apiacea extract
Astrocaryum muru, A. tucuma extract
Bactris gasipaes extract
Borojoa sorbilis extract
Calendula amurrensis extract
Chrysanthemum morifolium extract
Coccinea indica extract
Comfrey (Symphytum officinale) leaf extract
Condurango extract
Dandelion (Taraxacum officinale) extract
Echitea glauca extract
Equisetum arvense extract
Eucalyptus (Eucalyptus globulus) extract
Eupholorium fortunei extract
Euterpe precatoria extract
Ficus racemosa extract
Glycoproteins
Hierochloe odorata extract
Horse chestnut (Aesculia hippocastanum) extract
Inga edulis extract
Kadsura heteliloca extract
Ligustrum lucidum extract
Lysimachia foenum-graecum extract
Mauritia flexosa extract
Maximilliana regia extract
Melaleuca bracteata, M. symphyocarp extract
Nelumbium speciosum extract
Ocimum basilicum extract, O. santum extract
Paulownia imperialis extract
Pfaffia spp. extract
Pterocarpus marsupianus extract
Rubus thunbergii extract
Selinum spp. extract
Shorea robusota extract
Xanthozylum bungeanum extract

Cleansing
Birch (Betula alba) leaf extract
Lemongrass (Cymbopogon schoenanthus) extract
Oat (Avena sativa) bran extract
Passion flower (Passiflora laurifolia) fruit extract
Witch hazel (Hamamelis virginiana) extract
Yarrow (Achillea millefolium) extract

Conditioner
Acetamide MEA
6-(N-Acetylamino)-4-oxyhexyltrimonium chloride
Acrylamidopropyltrimonium chloride/acrylamide copolymer
Adipic acid/dimethylaminohydroxypropyl diethylene triamine copolymer
AMP-isostearoyl hydrolyzed wheat protein
Apricot (Prunus armeniaca) kernel oil
Behenalkonium chloride
Behenamidopropyl dihydroxypropyl dimonium chloride
Behenamidopropyl ethyldimonium ethosulfate
Behenamidopropyl PG-dimonium chloride

Functions

Behenamidopropyldimethylamine behenate
Behenamine oxide
Behenoyl PG-trimonium chloride
Behenyl betaine
Benzyltrimonium hydrolyzed collagen
Canolamidopropyl betaine
Capramide DEA
Caprylic/capric/laurie triglyceride
Caprylyl pyrrolidone
Cassia auriculata extract
Cetamine oxide
Cetearalkonium chloride
Chitosan PCA
Citric acid
Cocamidopropyl dimethylamine, C.d. lactate, C.d. propionate
Cocamidopropyl dimethylaminohydroxypropyl hydrolyzed collagen
Cocamidopropyldimonium hydroxypropylhydrolyzed collagen
Cocamidopropyl ethyldimonium ethosulfate
Cocamidopropyl PG-dimonium chloride, C.P.c. phosphate
Coco-morpholine oxide
Coco/oleamidopropyl betaine
Cocodimonium hydroxypropyl hydrolyzed hair keratin
Cocodimonium hydroxypropyl hydrolyzed rice protein
Cocodimonium hydroxypropyl hydrolyzed silk
Cocodimonium hydroxypropyl hydrolyzed soy protein
Coconut alcohol
N-Cocoyl-(3-amidopropyl)-N,N-dimethyl-N-ethyl ammonium ethyl sulfate
Collagen phthalate
Dibehenyl/diarachidyl dimonium chloride
Dibehenyldimonium chloride
Dicetyldimonium chloride
Didecyldimonium chloride
Dihydroxyethyl cocamine oxide
Dihydroxyethyl dihydroxypropyl stearmonium chloride
Dihydroxyethyl tallow glycinate
Dihydroxyethyl tallowamine oxide
Dilauryl acetyl dimonium chloride
Dilinoleamidopropyl dimethylamine
Dimethyl hydrogenated tallowamine
Dimethyl lauramine, D.l. isostearate
Dimethyl myristamine, soyamine, stearamine
Dimethylamidopropylamine dimerate
Disodium hydrogenated cottonseed glyceride sulfosuccinate
Disodium laureth sulfosuccinate
Disodium lauroamphodiacetate
Distearyldimonium chloride
Ethyl ester of hydrolyzed keratin
N-Ethylether-bis-1,4-(N-isostearylamidopropyl-N,N-dimethyl ammonium chlo
Glutamic acid
Glyceryl collagenate
Glycine
Guar hydroxypropyltrimonium chloride
Henna (Lawsonia inermis) extract
Hydrogenated tallowamine oxide
Hydrogenated tallowtrimonium chloride
Hydrolyzed conchiorin protein
Hydrolyzed egg protein
Hydrolyzed extensin
Hydrolyzed fibronectin
Hydrolyzed fish protein
Hydrolyzed keratin
Hydrolyzed lactalbumin
Hydrolyzed milk protein
Hydrolyzed oats
Hydrolyzed reticulin
Hydrolyzed soy protein
Hydrolyzed sweet almond protein
Hydrolyzed wheat protein/PVP copolymer
Hydrolyzed wheat protein polysiloxane polymer
Hydroxycetyl hydroxyethyl dimonium chloride
Hydroxyproline
Hydroxypropyl chitosan
Hydroxypropyl guar hydroxypropyltrimonium chloride
Hydroxypropyl-bis-isostearyamidopropyldimonium chloride
Hydroxypropyl bis-stearyldimonium chloride
Hydroxypropyltrimonium gelatin
Hydroxypropyltrimonium hydrolyzed keratin
H.h. silk
Hydroxypropyltrimonium hydrolyzed wheat protein
Isopropyl hydroxybutyramide dimethicone copolyol
Isopropyl lanolate
Isostearamidopropyl betaine, I. dimethylamine
Isostearamidopropyl dimethylamine gluconate
Isostearamidopropyl dimethylamine glycolate
Isostearamidopropyl dimethylamine lactate
Isostearamidopropyl ethyldimonium ethosulfate
Isostearamidopropyl laurylacetodimonium chloride
Isostearamidopropyl morpholine, I.m. lactate
Isostearamidopropyl morpholine oxide
Isostearamidopropyl PG-dimonium chloride
Isostearaminopropalkonium chloride
Isostearyl hydrolyzed animal protein
Isostearylamidopropyl dihydroxypropyl dimonium chloride
Lactoglobolin
Lauramidopropyl dimethylamine
Lauramidopropyl PG-dimonium chloride, I.P.c. phosphate
Lauramine oxide
Lauroampho PG-glycinate phosphate
Lauroyl hydrolyzed collagen, L.h. elastin
Lauroyl silk amino acids
Lauryl methyl gluceth-10 hydroxypropyl-dimonium chloride
Lauryl phosphate, L. pyrrolidone
Lauryldimonium hydroxypropyl hydrolyzed collagen, keratin, soy protein
Linoleamidopropyldimethylamine
Milk amino acids
Milk protein (Lactis proteinum)
Myristalkonium chloride
Myristamidopropyl betaine, M. dimethylamine
Myrtrimonium bromide
Oat (Avena sativa) protein
Oleamide
Oleamidopropyl betaine, O. dimethylamine
Oleamidopropyl dimethylamine hydrolyzed collagen
Oleamidopropylamine oxide
Oleamine
Oleamine oxide
Oleoyl sarcosine
Oleyl betaine
Oleyl dimethylamidopropyl ethonium ethosulfate
Palmitamidopropyl betaine
Palmitamidopropyl dimethylamine
Palmitamine, P. oxide
Panthenyl hydroxypropyl steardimonium chloride
PEG-2 milk solids
PEG-2 oleammonium chloride
PEG-3 lauramine oxide
PEG-5 stearyl ammonium lactate
PEG-15 cocomonium chloride
PEG-15 cocopolyamine
PEG-15 tallowmonium chloride
PEG-27
PEG-40
PEG-85 lanolin
PEG-7000
Polydimethicone copolyol
Polymethacrylamidopropyltrimonium chloride
Polyoxyethylene dihydroxypropyl linoleaminium chloride
Polyquaternium-2, -5, -6, -11, -16
Polyquaternium-17, -18, -24, -29, -44
Potassium dimethicone copolyol panthenyl phosphate
Potassium lauroyl collagen amino acids
Potassium lauroyl hydrolyzed soy protein
Potassium lauroyl wheat amino acids
Potassium stearoyl hydrolyzed collagen
PPG-5 lanolin alcohol ether
PPG-9 diethylmonium chloride
PPG-20 lanolin alcohol ether
Proline
Propylene glycol stearate
PVP/dimethiconylacrylate/polycarbamyl/polyglycol ester
PVP/dimethylaminoethylmethacrylate copolymer
PVP/dimethylaminoethylmethacrylate/polycarbamyl/polyglycol ester
PVP/hydrolyzed wheat protein copolymer
Quaternium-22, -26, -33, -61, -62, -70, -80
Quaternium-76 hydrolyzed collagen
Rapeseedamidopropyl benzyldimonium chloride
Rapeseedamidopropyl epoxypropyl dimonium chloride
Rapeseedamidopropyl ethyldimonium ethosulfate
Rice peptide
Ricinoleamidopropyl-dimonium ethosulfate
Ricinoleamidopropyl betaine
Ricinoleamidopropyl dimethylamine lactate
Ricinoleamidopropyl ethyldimonium ethosulfate
Ricinoleamidopropyltrimonium chloride
Ricinoleamodopropyltrimonium ethosulfate
Silicone quaternium-3, -4
Silk amino acids
Sodium/TEA-lauroyl collagen amino acids
Sodium/TEA-lauroyl hydrolyzed keratin
Sodium/TEA-lauroyl keratin amino acids
Sodium citrate
Sodium cocoyl hydrolyzed soy protein
Sodium hydrogenated tallow dimethyl glycinate
Sodium lauroyl collagen, keratin amino acids
Sodium lauroyl wheat amino acids
Sodium stearoamphoacetate
Soluble keratin, wheat protein
Soyamide DEA
Soyamidopropyl benzyldimonium chloride
Soyamidopropyl betaine, S. dimethylamine
Soyamidopropyl ethyldimonium ethosulfate
Soyethyl morpholinium ethosulfate
Soyethyldimonium ethosulfate
Stearamide MEA
Stearamidoethyl diethylamine, ethanolamine
Stearamidopropyl benzyl dimonium chloride
Stearamidopropyl cetearyl dimonium tosylate
Stearamidopropyl dimethylamine stearate
Stearamidopropyl ethyldimonium ethosulfate
Stearamidopropyl morpholine lactate
Stearamidopropyl PG-dimonium chloride phosphate
Stearamine oxide
Steardimonium hydroxypropyl hydrolyzed collagen, keratin
Steardimonium panthenol
Stearoyl amidoethyl diethylamine
Steartrimonium bromide
Stearyl dimethicone
Tallowamidopropyl dimethylamine
Tetramethyl trihydroxy hexadecane
TEA-cocoyl hydrolyzed collagen
Trachea hydrolysate
Tricetylmonium chloride
Tridecyl salicylate
Triethonium hydrolyzed collagen ethosulfate
Wheat germamidopropalkonium chloride
Wheat germamidopropyl dimethylamine lactate

Functions

Wheat germamidopropyl ethyldimonium ethosulfate
Wheat peptide
Yeast powder, deproteinated

Coupling agent
Acetyl monoethanolamine
Butyloctanol
Myreth-3
Oleyl alcohol
PPG-10 butanediol
PPG-10 cetyl ether
PPG-10 oleyl ether
PPG-15 stearyl ether
PPG-22 butyl ether
PPG-23 oleyl ether
PPG-50 oleyl ether
Trideceth-7 carboxylic acid

Denaturant
Brucine sulfate
Denatonium benzoate, saccharide
Nicotine sulfate
Sucrose octaacetate
Thymol

Dental powder
Dicalcium phosphate
Silica
Sodium monofluorophosphate
Stannous fluoride

Deodorant
Abietic acid
Azadirachta indica extract
Chlorophyllin-copper complex
Eugenia jambolana extract
Farnesol
Fermented vegetable
Mauritia flexosa extract
Salvia miltiorrhiza extract
Sodium aluminum chlorohydroxy lactate
Spondias amara extract
Triethyl citrate
Zinc phenol sulfonate, Z. ricinoleate

Depilatory
Barium sulfide
Beeswax, oxidized
Calcium thioglycolate
L-cysteine HCL
Potassium thioglycolate
Sodium thioglycolate
Thioglycerin

Detergent
Ammonium laureth sulfate
Ammonium lauryl sulfate
Capramide DEA
Cocamidopropyl dimethylamine lactate
Decyl glucoside
Decyltetradeceth-25
DEA lauryl sulfate
Diamyl sodium sulfosuccinate
Dicyclohexyl sodium sulfosuccinate
Diisobutyl sodium sulfosuccinate
Disodium caproamphodiacetate
Disodium caproamphodipropionate
Disodium capryloamphodiacetate
Disodium capryloamphodipropionate
Disodium cetearyl sulfosuccinate
Disodium cocamido MEA-sulfosuccinate
Disodium cocamido MIPA-sulfosuccinate
Disodium cocoamphodipropionate
Disodium deceth-6 sulfosuccinate
Disodium isodecyl sulfosuccinate
Disodium lauramido MEA-sulfosuccinate
Disodium lauramido PEG-2 sulfosuccinate
Disodium laureth sulfosuccinate
Disodium lauroamphodiacetate
Disodium lauroamphodipropionate
Disodium lauryl sulfosuccinate
Disodium myristamido MEA-sulfosuccinate
Disodium nonoxynol-10 sulfosuccinate
Disodium oleamido PEG-2 sulfosuccinate
Disodium PEG-4 cocoamido MIPA-sulfosuccinate
Disodium ricinoleamido MEA-sulfosuccinate
Disodium tallowiminodipropionate
Dodecylbenzene sulfonic acid
Dodoxynol-6, -9
Isopropylamine dodecylbenzenesulfonate
Isostearamidopropyl betaine
Isosteareth-6 carboxylic acid
Isostearoamphopropionate
Isostearyl hydroxyethyl imidazoline
Lauramidopropylamine oxide
Laureth-11
Lauroampho PG-glycinate phosphate
Lauryl glucoside, L. phosphate
Magnesium laureth sulfate, M. lauryl sulfate
Magnesium PEG-3 cocamide sulfate
MEA-dodecylbenzenesulfonate
MEA-laureth sulfate
MEA-lauryl sulfate
MIPA-lauryl sulfate
Myristamine oxide
Myristic acid
Nonoxynol-10
Oleoamphohydroxypropylsulfonate
Oleth-12, -15
Oleyl betaine
Palmitamidopropyl betaine
PEG-10 glyceryl stearate
PEG-15 glyceryl stearate
PEG-25 glyceryl isostearate
Potassium cocoyl hydrolyzed collagen
Sodium caproamphoacetate
Sodium cocoamphoacetate
Sodium cocoamphopropionate
Sodium cocomonoglyceride sulfate
Sodium cocoyl hydrolyzed soy protein
Sodium cocoyl isethionate
Sodium C12-15 pareth-25 sulfate
Sodium C14-16 olefin sulfonate
Sodium C14-17 alkyl secsulfonate
Sodium deceth sulfate
Sodium decyl diphenyl ether sulfonate
Sodium dodecylbenzenesulfonate
Sodium dodecyldiphenyl ether sulfonate
Sodium iodate
Sodium laureth-2 sulfate
Sodium laureth-3 sulfate
Sodium laureth-7 sulfate
Sodium laureth-12 sulfate
Sodium laureth-13-carboxylate
Sodium laureth sulfate
Sodium lauriminodipropionate
Sodium lauroamphopropionate
Sodium lauroyl methyl alaninate
Sodium lauryl phosphate, S.L sulfate
Sodium lauryl sulfoacetate
Sodium methyl oleoyl taurate
Sodium methyl cocoyl taurate
Sodium methyllauroyltaurate
Sodium methylnaphthalenesulfonate
Sodium myreth sulfate
Sodium myristyl sulfate
Sodium octyl sulfate, oleyl sulfate
Sodium POE alkyl ether acetate
Sodium trideceth-7 carboxylate
Sodium trideceth sulfate
Sodium tridecyl sulfate
Steareth-11, -30
TEA-dodecylbenzenesulfonate
TEA-laureth sulfate
TEA-lauryl sulfate
TEA-palm kernel sarcosinate
TEA-PEG-3 cocamide sulfate
Undecylenamidopropyl betaine

Disinfectant
Benzalkonium chloride
Chlorophene
Didecyldimonium chloride
Myristalkonium saccharinate
Shikonin
Sodium capryloamphoacetate
Tea tree (Melaleuca alternifolia) oil
p-Tertarylphenol

Dispersant
Alkylated polyvinylpyrrolidone
C20-40, C30-50, C40-60 alcohols
Castor (Ricinus communis) oil
Ceteareth-20
Cetyl PPG-2 isodeceth-7 carboxylate
Cholesteryl/behenyl/octyldodecyl lauroyl glutamate
Decaglycerol monodioleate
Diisocetyl dodecanedioate
Diisostearyl adipate
Dimethicone copolyol methyl ether
Dioctyldodecyl dimer dilinoleate
Dioctyldodecyl dodecanedioate
Ethyl hydroxymethyl oleyl oxazoline
Glyceryl caprylate, G. caprylate/caprate
Glyceryl diisostearate
Hydrogenated castor oil, H. lecithin
Hydrogenated tallow glycerides
Isobutylene/MA copolymer
Isocetyl alcohol
Isopropyl C12-15-pareth-9-carboxylate
Isostearyl neopentanoate
Lanolin acid
Laureth-4, -6, -16
Melanin
Nonoxynol-2, -18, -20, -30, -40
Octoxynol-5, -10
Octoxynol 16, 30, 40, 70
Octyldodeceth-5
Octyldodecyl/dimethicone copolyol citrate
Oleth-40
Oleyl alcohol
PEG-5 castor oil, glyceryl sesquioleate
PEG-6 beeswax
PEG-8/SMDI copolymer
PEG-9 castor oil, oleate, stearate
PEG-10 dioleate, stearamine
PEG-12 beeswax
PEG-12 glyceryl dioleate, laurate
PEG-15 castor oil
PEG-20 almond glycerides
PEG-20 glyceryl isostearate
PEG-20 sorbitan triisosterate
PEG-25 castor oil
PEG-30 dipolyhydroxystearate
PEG-40 hydrogenated castor oil PCA isostearate
PEG-60 shea butter glycerides
Poloxamer 101, 122, 181, 182, 184
Polyglyceryl-2 sesquiisostearate
Polyglyceryl-3 diisostearate, oleate
Polyglyceryl-5 distearate
Polyglyceryl-6 mixed fatty acids
Polyglyceryl-10 diisostearate, distearate
Polyglyceryl-10 decaoleate
Polyhydroxystearic acid
Polysorbate 40, 80
Potassium polyacrylate
PPG-3 PEG-6 oleyl ether
PPG-9 diethylmonium phosphate
PPG-12/SMDI Copolymer
PPG-15 stearyl ether
PPG-25, PPG-40 diethylmonium chloride
PPG-51/SMDI Copolymer
PVP/eicosene copolymer
PVP/hexadecene copolymer

Rapeseed oil, ethoxylated high erucic acid
Ricinoleyl alcohol
Sodium ceteth-13-carboxylate
Sodium lignosulfonate, S. polymethacrylate
Sodium polynaphthalenesulfonate
Sorbitan oleate
Steareth-10
Tricontanyl PVP
Triisostearin PEG-6 esters
Trioctyldodecyl citrate

Emollient
Acetylated glycol stearate
Acetylated hydrogenated lanolin
Acetylated hydrogenated lard glyceride
Acetylated hydrogenated vegetable glyceride
Acetylated lanolin, A.l. alcohol
Acetylated lard glyceride
Acetylated monoglycerides
Acetylated palm kernel glycerides
Aleurites moluccana ethyl ester
Allantoin
Aluminum/magnesium hydroxide stearate
AMP-isostearoyl hydrolyzed soy protein
Apricot (Prunus armeniaca) kernel oil
Arachidyl behenate
Argania spinosa oil
Avocado (Persea gratissima) oil, unsaponifiables
Avocado oil ethyl ester
Babassu (Orbignya oleifera) oil
Batyl isostearate, B. stearate
Behenamidopropyl dihydroxypropyl dimonium chloride
Behenoxy dmethicone
Behenyl alcohol, B. behenate
Behenyl erucate, B. isostearate
Benzyl laurate
Bladderwrack (Fucus vesiculosus) extract
Borage (Borago officinalis) seed oil
Borageamidopropyl phosphatidyl PG-dimonium chloride
Brain extract
Brazil nut (Bertholettia excelsa) oil
Butyl myristate, oleate, stearate
Butyloctanol
Butyloctyl oleate
C12-13, C12-16, C14-15 alcohols
C12-15 alcohols octanoate
C12-15 alkyl benzoate
dl-C12-15 alkyl fumarate
C12-15 alkyl lactate
Camellia kissi oil
Tea (Camellia sinensis) oil
C10-30 cholesterol/lanosterol esters
Canola oil
Caprylic/capric triglyceride
Caprylic/capric triglyceride PEG-4 esters
Caprylic/capric/lauric triglyceride
Caprylic/capric/linoleic triglyceride
Caprylic/capric/oleic triglycerides
Caprylic/capric/stearic triglyceride
Caprylic/capric/succinic triglyceride
Capsicum frutescens oleoresin
Carrot (Daucus carota sativa) oil
Cashew (Anacardium occidentale) nut oil
Castor (Ricinus communis) oil
Cetearyl behenate, C. candelillate
Cetearyl isononanoate, C. octanoate
Cetearyl palmitate, C. stearate
Ceteth-10
Cetostearyl stearate
Cetyl C12-15 pareth-9 carboxylate
Cetyl acetate, C. alcohol
Cetyl esters, C. lactate
Cetyl myristate, C. octanoate
Cetyl oleate, C. palmitate
Cetyl PPG-2 isodeceth-7 carboxylate
Cetyl ricinoleate, C. stearate
Cetyl stearyl octanoate
Chia (Salvia hispanica) oil
Cholesteric esters
Cholesterol
Cholesteryl/behenyl/octyldodecyl lauroyl glutamate
Cholesteryl hydroxystearate
Cholesteryl stearate
Choleth-24
C 18-70 Isoparaffin
C10-18, C12-18 triglycerides
C12-15 linear alcohols 2-ethylhexanoate
Cocamidopropyl PG-dimonium chloride
Cocoa (Theobroma cacao) butter
Coco-caprylate/caprate
Coco-rapeseedate
Coconut (Cocos nucifera) oil
Cocoyl hydrolyzed soy protein
Collagen phthalate
Colloidal oatmeal
Comfrey (Symphytum officinale) leaf extract
Corn (Zea mays) oil
Corn poppy (Papaver rhoeas) extract
Cottonseed (Gossyplum) oil
Cuttlefish extract
Cyclomethicone
Deceth-4 phosphate
Decyl oleate
Decyltetradecanol
Dialkyldimethylpolysiloxane
Dibutyl sebacate
Dicapryl adipate
Dicaprylyl ether, D. maleate
Diethylene glycol diisononanoate
Diethylene glycol dioctanoate
bis-Diglyceryl/caprylate/caprate/isostearate/hydroxystearate/adipate
bis-Diglyceryl/caprylate/caprate/isosteareth/stearate/hydroxystearate/adipate
Dihydroabietyl behenate
Dihydroxyethyl tallowamine oleate
Diisobutyl adipate
Diisocetyl adipate, dodecanedioate
Diisodecyl adipate
Diisopropyl adipate, dimer dilinoleate
Diisopropyl sebacate
Diisostearoyl trimethylolpropane siloxy silicate
Diisostearyl adipate
Diisostearyl dimer dilinoleate
Diisostearyl fumarate, D. malate
Dilinoleic acid
Dimethicone
Dimethicone copolyol
Dimethicone copolyol acetate, D.c. almondate
Dimethicone copolyol isostearate, D.c. lactate
Dimethicone copolyol methyl ether
Dimethicone copolyol phthalate
Dimethicone propylethylenediamine behenate
Dimethiconol stearate
Dimethyl lauramine oleate
Dioctyl adipate
Dioctyl dimer dilinoleate
Dioctylcyclohexane
Dioctyldodecyl dimer dilinoleate
Dioctyldodecyl dodecanedioate
Dioctyl malate, D. sebacate, succinate
Dipentaerythritol fatty acid ester
Dipentaerythrityl hexacaprylate/hexacaprate
Dipentaerythrityl hexahydroxystearate/isostearate
Distearyldimethylamine dilinoleate
Ditridecyl adipate
Dog rose (Rosa canina) hips oil
Egg (Ovum) yolk extract
Emu (Dromiceius) oil
Erucyl erucate
Ethyl avocadate
Ethylhexyl isopalmitate

Functions

2-Ethylhexyl isostearate
Ethyl linolenate, E. minkate
Ethyl morrhuate, E. myristate
Ethyl oleate, E. olivate
Evening primrose (Oenothera biennis) extract, oil
Glycereth-4,5-lactate
Glycereth-5 lactate
Glycereth-7 benzoate
Glycereth-7 diisononanoate
Glycereth-7 triacetate
Glycereth-7 trioctanoate
Glycereth-12, -26
Glycerol tricaprylate/caprate
Glyceryl adipate, G. dioleate
Glyceryl isostearate, G. lanolate
Glyceryl linoleate, G. monopyroglutamate
Glyceryl myristate, G. oleate
Glyceryl ricinoleate
Glyceryl triacetyl hydroxystearate
Glyceryl triacetyl ricinoleate
Glycosaminoglycans
Glycosphingolipids
Gold of Pleasure oil
Grape (Vitis vinifera) seed oil
Hazel (Corylus avellana) nut oil
Helianthus annum ethyl ester
Hexadecyl isopalmitate
Hexamethyldisiloxane
Hexyl laurate
Hexyldecanol
Hexyldecyl stearate
Honey extract
Hybrid safflower (Carthamus tinctorius) oil
Hybrid sunflower (Helianthus annuus) oil
Hydrogenated C6-14 olefin polymers
Hydrogenated castor oil
Hydrogenated castor oil laurate
Hydrogenated coconut oil
Hydrogenated cottonseed oil
Hydrogenated C12-18 triglycerides
Hydrogenated lanolio
Hydrogenated lanolin, distilled
Hydrogenated lecithin
Hydrogenated milk lipids
Hydrogenated mink oil
Hydrogenated palm kernel glycerides
Hydrogenated palm oil
Hydrogenated polyisobutene
Hydrogenated soybean oil
Hydrogenated starch hydrolysate
Hydrogenated tallow glyceride
Hydrogenated tallow glyceride lactate
Hydrogenated turtle oil
Hydrogenated vegetable glycerides
Hydrogenated vegetable oil
Hydrolyzed collageo
Hydrolyzed coochiorio protein
Hydrolyzed keratin
Hydrolyzed mushroom (Tricholoma matsutake) extract
Hydrolyzed oat protein
Hydroxylated lanolin
Hydroxylated milk glycerides
Hydroxystearic acid
Illipe butter
Isobutyl palmitate, I. stearate
Isocetyl behenate, I. octanoate
Isocetyl palmitate, I. salicylate
Isocetyl stearate
Isodeceth-2 cocoate
Isodecyl citrate, I. cocoate
Isodecyl isononanoate, I. laurate
Isodecyl neopentanoate
Isodecyl octanoate, I. oleate
Isodecyl stearate
Isododecane
Isoeicosane
Isohexadecane
Isononyl isononanoate
Isopentyldiol
Isopropyl avocadate
Isopropyl C12-15-pareth-9-carboxylate
Isopropyl isostearate
Isopropyl lanolate, I. linoleate
Isopropyl myristate, I. palmitate
Isopropyl PPG-2-isodeceth-7 carboxylate
Isopropyl stearate
Isosorbide laurate
Isostearic acid
Isostearyl alcohol
Isostearyl behenate, I. benzoate
Isostearyl diglyceryl succinate
Isostearyl erucate, I. erucyl erucate
Isostearyl isostearate, I. lactate
Isostearyl malate, I. myristate
Isostearyl neopentanoate, palmitate
Isostearyl stearoyl stearate
Isostearylamidopropyl dihydroxypropyl dimonium chloride
Isotridecyl isononanoate
Isotridecyl myristate
Jojoba (Buxus chinensis) oil
Jojoba butter, J. esters
Jojoba oil, synthetic
Kukui (Aleurites molaccana) nut oil
Lactamide DGA
Laneth-10 acetate
Lanolin, L. acid
Lanolin alcohol, L. oil
Lanolin, ultra anhydrous
Lanolin wax
Lanosterol
Lard glyceride
Laureth-2, -3
Laureth-2 acetate, L. benzoate
Laureth-2-octanoate
Lauric/palmitic/oleic triglyceride
Lauryl behenate, L. lactate
Lauryl phosphate
Lauryldimethylamine isostearate
Lesquerella fendleri oil
Linoleic acid
Macadamia ternifolia nut oil
Maleated soybean oil
Mango (Magnifera indica) oil, seed oil
Mango kernel oil
Meadowfoam (Limnanthes alba) seed oil
Menhaden (Brevoortia tyrannus) oil
Methyl acetyl ricinoleate
Methyl gluceth-20
Methyl gluceth-20 benzoate, M. g. distearate
Methyl hydroxystearate, M. ricinoleate
Microcrystalline wax
Mineral oil (Paraffinum liquidum)
Mink oil
Musk rose (Rosa moschata) oil
Myreth-3
Myreth-3 caprate, M. laurate
Myreth-3 myristate, M. octanoate
Myristyl alcohol, M. lactate
Myristyl myristate, M. octanoate
Myristyl propionate, M. stearate
Neatsfoot oil
Neem (Melia azadirachta) seed oil
Neopentyl glycol dicaprate
Neopentyl glycol dicaprate/dicaprylate
Neopentyl glycol diisooctanoate
Neopentyl glycol dioctanoate
Oat (Avena sativa) bran extract, extract, flour
Octacosanyl stearate
Octyl cocoate
Octyl hydroxystearate, O. isononanoate
Octyl neopentanoate, O. octanoate
Octyl oleate, O. palmitate
Octyl pelargonate, O. stearate
Octyldecanol
Octyldodecanol
Octyldodecyl behenate, O. benzoate
Octyldodecyl erucate, O. myristate
Octyldodecyl oleate, O. ricinoleate
Octyldodecyl stearate
bis-Octyldodecyl stearoyl dimer dilinoleate
Octyldodecyl stearoyl stearate
Oleamine oxide
Oleic/palmitoleic/linoleic glycerides
Oleic alcohol
Oleostearine
Oleyl alcohol, O. erucate, O. oleate
Olive (Olea europa) oil
Orange (Citrus aurantium dulcis) peel wax
Orange roughy (Hoplostethus atlanticus) oil
Palm (Elaeis guineensis) oil
Palm kernel glycerides
Palmitic acid
Panthenyl triacetate
Partially hydrogenated canola oil
Partially hydrogenated soybean oil
Peach (Prunus persica) extract
Peanut (Arachis hypogaea) oil
Pecan (Carya illinoensis) oil
PEG-2 diisononanoate, P. dioctanoate
PEG-2 milk solids
PEG-4
PEG-4 diheptanoate, P. dilaurate
PEG-5 C8-12 alcohols citrate
PEG-5 C14-18 alcohols citrate
PEG-5 hydrogenated castor oil
PEG-5 hydrogenated castor oil triisostearate
PEG-6
PEG-6 capric/caprylic glycerides
PEG-7 glyceryl cocoate
PEG-8
PEG-8 dilaurate, P. dioleate
PEG-8/SMDI copolymer
PEG-9 stearyl stearate
PEG-10 stearyl stearate
PEG-12
PEG-12 dioleate, P. palm kernel glycerides
PEG-15 cocamine oleate/phosphate
PEG-18
PEG-20
PEG-20 hydrogenated castor oil isostearate
PEG-20 hydrogenated castor oil triisostearate
PEG-20 hydrogenated lanolin
PEG-24 hydrogenated lanolin
PEG-25 PABA, P. propylene glycol stearate
PEG-40 glyceryl laurate
PEG-40 hydrogenated castor oil isostearate
PEG-40 hydrogenated castor oil laurate
PEG-40 hydrogenated castor oil triisostearate
PEG-40 jojoba oil
PEG-50 hydrogenated castor oil laurate
PEG-50 hydrogenated castor oil triisostearate
PEG-60 shea butter glycerides
PEG-70 mango glycerides
PEG-75
PEG-75 lanolin, P. shea butter glycerides
PEG-75 shorea butter glycerides
PEG-150
PEG/PPG-17/6 copolymer
Pentaerythrityl dioleate
Pentaerythrityl isostearate/caprate/caprylate/adipate
Pentaerythrityl stearate
Pentaerythrityl stearate/caprate/caprylate/adipate
Pentaerythrityl tetracaprylate/tetracaprate
Pentaerythrityl tetraisononanoate, P. tetraisostearate
Pentaerythrityl tetralaurate, P. tetraoctanoate
Pentaerythrityl tetraoleate, P. tetrapelargonate
Pentaerythrityl tetrastearate
Perfluorodecalin
Perfluoropolymethylisopropyl ether
Petrolatum
Phenethyl dimethicone
Phenyl dimethicone, P. methicone, P. trimethicone

Phytantriol
Pistachio (Pistacia vera) nut oil
Placental enzymes
Pollen extract
Poloxamer 105 benzoate
Poloxamer 182 dibenzoate
Polybutene
Polydecene
Polydimethicone copolyol
Polyethylene glycol
Polyglyceryl-2 diisostearate, P. tetraisostearate
Polyglyceryl-2 triisostearate
Polyglyceryl-3 diisostearate, P. oleate
Polyglyceryl-3 stearate
Polyglyceryl-6 dioleate
Polyglyceryl-10 decaoleate, P. decastearate
Polyglyceryl-10 tetraoleate
Polyisobutene
Polyisobutene/isohexapentacontahectane
Polyisobutene/isooctahexacontane
Polyisobutene/isopentacontaoctane
Polyisoprene
Polyoxyethylene polyoxypropylene glycol
Polyquaternium-2
Polysiloxane polyalkylene copolymer
Polysorbate 40
Potassium dimethicone copolyol phosphate
PPG-2-buteth-3
PPG-2 lanolin alcohol ether
PPG-2 myristyl ether propionate
PPG-3 hydrogenated castor oil
PPG-3 myristyl ether
PPG-5-buteth-7
PPG-5-laureth-5
PPG-5 butyl ether
PPG-5 lanolin wax
PPG-5 pentaerythrityl ether
PPG-7-buteth-10
PPG-8/SMDI copolymer
PPG-9
PPG-9-buteth-12
PPG-9 butyl ether
PPG-10 butanediol, P. cetyl ether
PPG-10 methyl glucose ether
PPG-10 oleyl ether
PPG-11 stearyl ether
PPG-12-buteth-16
PPG-12-PEG-50 lanolin
PPG-12-PEG-65 lanolin oil
PPG-12/SMDI Copolymer
PPG-14 butyl ether
PPG-15 butyl ether, P. stearyl ether
PPG-15 stearyl ether benzoate
PPG-16 butyl ether
PPG-18 butyl ether
PPG-20
PPG-20-buteth-30
PPG-20 cetyl ether
PPG-24-glycereth-24
PPG-26
PPG-27 glyceryl ether
PPG-28-buteth-35
PPG-30
PPG-30 cetyl ether
PPG-40 butyl ether
PPG-50 cetyl ether, P. oleyl ether
PPG-51/SMDI Copolymer
PPG-53 butyl ether
Propylene glycol ceteth-3 acetate
Propylene glycol dicaprylate
Propylene glycol dicaprylate/dicaprate
Propylene glycol diisostearate, P.g. dioctanoate
Propylene glycol dipelargonate
Propylene glycol isoceteth-3 acetate
Propylene glycol isostearate, P.g. laurate
Propylene glycol myristate
Propylene glycol myristyl ether acetate
Propylene glycol stearate, SE
Pumpkin (Cucurbita pepo) seed oil
Quinoa (Chenopodium quinoa) oil
Rapeseed (Brassica campestris) oil
Rice (Oryza sativa) bran oil, bran wax
Rice fatty acid
Safflower (Carthamus tinctorius) oil
Salmon (Salmo) egg extract
Sesame (Sesamum indicum) oil
Shark liver oil
Shea butter (Butyrospermum parkii)
Shea butter (Butyrospermum parkii) extract
Shea butter, ethoxylated
Shorea stenoptera butter
Silybum marianum ethyl ester
Sitostearyl acetate
Skin lipids
Slippery elm extract
Sodium C8-16 isoalkylsuccinyl lactoglobulin sulfonate
Sodium carboxymethyl beta-glucan
Sodium ceteth-13-carboxylate
Sodium dimethicone copolyol acetyl methyltaurate
Sodium glyceryl oleate phosphate
Sodium hyaluronate, S. polymethacrylate
Sorbeth-20
Sorbitan isostearate, S. palmitate
Sorbitan sesquioleate, S. sesquistearate
Sorbitan trioleate
Soybean (Glycine soja) oil
Spermaceti
Sphingolipids
Squalene
Stearamidopropyl cetearyl dimonium tosylate
Steareth-4 stearate
Stearic acid, S. hydrazide
Stearoxy dimethicone

Functions

Stearoxymethicone/dimethicone copolymer
Stearyl behenate, S. benzoate
Stearyl dimethicone, S. erucate
Stearyl heptanoate, S. propionate
Stearyl stearate
Stearyl stearoyl stearate
Sucrose cocoate
Sunflower (Helianthus annuus) seed oil
Sweet almond (Prunus amygdalus dulcis) oil
Sweet cherry (Prunus avium) pit oil
Synthetic jojoba oil
Synthetic wax
Tallow
Tetradecyleicosyl stearate
Tocopheryl acetate
Tricaprin
Tricaprylin
Tricaprylyl citrate
Tricholoma matsutake extract
Tridecyl behenate, T. cocoate
Tridecyl erucate, T. neopentanoate
Tridecyl octanoate, T. stearate
Tridecyl stearoyl stearate
Tridecyl trimellitate
Trihexyldecyl citrate
Triisocetyl citrate
Triisostearin
Triisostearyl citrate
Triisostearyl trilinoleate
Trilaurin
Trilinolein
Trimethylolpropane tricaprylate/tricaprate
Trimethylolpropane tricocoate
Trimethylolpropane trilaurate
Trimyristin
Trioctanoin
Trioctyldodecyl citrate
Triolein
Tripalmitin
Tripropylene glycol citrate
Tristearin
Triundecanoin
Vegetable oil
Walnut (Juglans regia) oil
Wheat (Triticum vulgare) germ oil

Emulsifier

Acetylated hydrogenated lard glyceride
Acetylated hydrogenated vegetable glyceride
Acetylated monoglycerides
Acrylates/C10-C30 alkyl acrylate crosspolymer
Acrylates/vinyl isodecanoate crosspolymer
Acrylic acid/acrylonitrogens copolymer
2-Aminobutanol
Ammonium acrylates/acrylonitrogens copolymer
Arachidyl alcohol
Beeswax
Behenamidopropyl dihydroxypropyl dimonium chloride
Beheneth-5 -10 -20 -30
Behenic acid
Behenyl betaine
Borageamidopropyl phosphatidyl PG-dimonium chloride
Butyloctanol
C12-20 acid PEG-8 ester
C18-36 acid
Calcium dodecylbenzene sulfonate
Calcium protein complex
Calcium stearate
Calcium stearoyl lactylate
Capramide DEA
Caprylic/capric acid
Caprylic/capric glycerides
Castor oil, ethoxylated
Cetalkonium chloride
Ceteareth-2 -4 -5 -6
Ceteareth-2 phosphate
Ceteareth-5 phosphate
Ceteareth-8 -10 -11 -12
Ceteareth-10 phosphate
Ceteareth-15 -17 -20 -25
Ceteareth-27 -29 -30 -34
Cetearyl alcohol
Cetearyl glucoside
Ceteth-2 -4 -6 -10 -12 -13
Ceteth-16 -20 -25 -30 -33
Cetethyldimonium bromide
Cetrimonium chloride
Cetyl dimethicone copolyol
Cetyl phosphate
Cholesterol
Choleth-10 -15 -24
Cocamide DEA, C. MEA
Cocamidopropyl dimethylamine
Cocamidopropyl PG-dimonium chloride phosphate
Cocamine
Coceth-7 carboxylic acid
Coconut acid
Copper protein complex
Cottonseed glyceride
C12-13 pareth-3 -4 -9 -23
C16-18 pareth-3 -5.5 -13 -19
Cyclodextrin
Decaglycerol monodioleate
DEA-ceteareth-2-phosphate
DEA-cetyl phosphate
DEA-cyclocarboxypropyloleate
DEA-oleth-3 phosphate
DEA-oleth-5-phosphate
DEA oleth-10 phosphate
DEA-oleth-20-phosphate
Diceteareth-10 phosphoric acid
Diethanolamine
Diethylaminoethyl stearate
Diglyceryl stearate malate
Dihydrocholeth-15 -20 -30
Dihydrogenated tallow phthalic acid amide
Dilauryl acetyl dimonium chloride
Dilinoleamidopropyl dimethylamine dimethicone copolyol phosphate
Dilinoleic acid
Dimethicone copolyol almondate
Dimethicone copolyol isostearate
Dimethicone copolyol laurate
Dimethicone copolyol methyl ether
Dimethicone copolyol olivate
Dimethicone copolyol phthalate
Dipalmitoylethyl hydroxyethylmonium methosulfate
Dipropylene glycol
Disodium hydrogenated cottonseed glyceride sulfosuccinate
Disodium ricinoleamido MEA-sulfosuccinate
Disodium stearyl sulfosuccinate
Disodium sulfosuccinamide
Distearyl phthalic acid amide
N-Dodecyl-N,N-dimethyl-N-(dodecyl acetate) ammonium chloride
Dodecylphenol-ethylene oxide condensate
Egg (Ovum) yolk extract
Emulsifying wax NF
Ethoxylated fatty alcohol
N-Ethylether-bis-1,4-(N-isostearylamidopropyl-N,N-dimethyl ammonium chlo
Ethyl hexanediol
Euglena gracilis polysaccharide
Glycereth-26 phosphate
Glyceryl caprylate, G. caprylate/caprate
Glyceryl citrate/lactate/linoleate/oleate
Glyceryl cocoate, G. dilaurate
Glyceryl dilaurate, G. dioleate
Glyceryl distearate, G. hydroxystearate
Glyceryl isostearate, G. lanolate
Glyceryl laurate, G. linoleate
Glyceryl mono-di-tri-caprylate
Glyceryl myristate, G. oleate
Glyceryl palmitate, G. ricinoleate
Glyceryl ricinoleate SE
Glyceryl stearate, G. stearate citrate
Glyceryl stearate lactate
Glyceryl stearate SE
Glyceryl undecylenate
Glycol distearate, G. oleate
Glycol palmitate, G. stearate
Glycol stearate SE
Glycolamide stearate
Glycosphingolipids
Hydrogenated coco-glycerides
Hydrogenated cottonseed glyceride
Hydrogenated lanolin
Hydrogenated lecithin
Hydrogenated palm oil
Hydrogenated soy glyceride
Hydrogenated tallow glycerides
Hydrogenated tallow glycerides citrate
Hydroxycetyl phosphate
Hydroxylated lanolin
Hydroxylated lecithin
Hydroxyoctacosanyl hydroxystearate
Hydroxypropyl-bis-isostearyamidopropyldimonium chloride
Isoceteareth-8 stearate
Isoceteth-10 stearate
Isoceteth-20
Isocetyl alcohol
Isolaureth-6
Isostearamidopropyl dimethylamine gluconate
Isostearamidopropyl dimethylamine glycolate
Isostearamidopropyl laurylacetodimonium chloride
Isosteareth-2 -3 -10 -12 -20 -22 -50
Isosteareth-2-octanoate
Isosteareth-10 stearate
Isostearic acid
Isostearyl diglyceryl succinate
Isostearylamidopropyl dihydroxypropyl dimonium chloride
Karaya (Sterculia urens) gum
Laneth-5 -10 -15 -16 -20 -40
Laneth-10 acetate
Lanolin
Lanolin alcohol
Lanolin, ultra anhydrous
Lanolin wax
Lauramide DEA, L. MEA

Functions

Lauramidopropyl dimethylamine
Lauramidopropyl PG-dimonium chloride
Laureth-1 -2 -3 -4 -5
Laureth-2-octanoate
Laureth-3 phosphate
Laureth-4 carboxylic acid
Laureth-5 carboxylic acid
Laureth-6 -7 -9 -11 -12
Laureth-11 carboxylic acid
Laureth-16 -20 -23 -25 -30
Lauryl PCA
Laurylmethicone copolyol
Lecithin
Linoleamidopropyl PG-dimonium chloride phosphate
Lithium stearate
Magnesium sulfate hepta-hydrate
Maleated soybean oil
Methoxy PEG-17/dodecyl glycol copolymer
Methyl gluceth-20 distearate
Methyl glucose dioleate, M. g. sesquiisostearate
Methyl glucose sesquistearate
MEA-laureth sulfate
Myreth-3 -4 -7
Myreth-3 myristate
Myristamidopropyl dimethylamine
Nonoxynol-1 -2 -4 -5 -6 -7
Nonoxynol-8 -9 -10 -11 -12 -13
Nonoxynol-14 -15 -18 -20 -30 -40 -50
Nonyl nonoxynol-5 -10
Oat (Avena sativa) flour
Octoxynol-1 -3 -5 -8 -10
Octoxynol 16, 30, 40
2-Octyl dodecyl alcohol
Octyldodecanol
Octyldodeceth-20 -25
Oleamide DEA
Oleamidopropyl dimethylamine
Oleamine oxide
Oleic acid
Oleth-2 -3 -4 -5 -6 -7 -8 -9
Oleth-10 -12 -15 -20 -23
Oleth-25 -30 -40 -50
Oleth 13
Oleth-2 phosphate
Oleth-3 phosphate
Oleth-5 phosphate
Oleth-10 phosphate
Oleth-20 phosphate
Palm acid
Palmitamidopropyl dimethylamine
Palmitic acid
PEG-2 cocamine, P. distearate
PEG-2 hydrogenated tallow amine
PEG-2 laurate, P. laurate SE
PEG-2 oleamine, P. oleate
PEG-2 soyamine, P. stearamine
PEG-2 stearate, P. stearate SE
PEG-3 cocamide
PEG-3 C12-C18 alcohols
PEG-3 glyceryl isostearate
PEG-3 glyceryl triisostearate
PEG-3 glyceryl tristearate
PEG-3 lanolate, P. sorbitan oleate
PEG-3 stearate
PEG-4 dioleate, P. diisostearate
PEG-4 dilaurate, P. distearate
PEG-4 glyceryl distearate
PEG-4 laurate, P. oleate
PEG-4 stearate
PEG-4 stearyl stearate
PEG-4 tallate
PEG-5 castor oil, P. cocamine
PEG-5 C12-C18 alcohols
PEG-5 glyceryl isostearate
PEG-5 glyceryl sesquioleate
PEG-5 glyceryl stearate
PEG-5 glyceryl triisostearate
PEG-5 lanolate, P. oleamine
PEG-5 soy sterol, P. soyamine
PEG-5 stearamine, P. stearate
PEG-5 tallow amine
PEG-6 capric/caprylic glycerides
PEG-6 cocamide
PEG-6 C12-14 ether
PEG-6 dilaurate, P. dioleate
PEG-6 distearate, P. isostearate
PEG-6 lauramide, P. laurate
PEG-6 oleate, P. palmitate
PEG-6 sorbitan beeswax
PEG-6 sorbitan laurate
PEG-6 sorbitan oleate
PEG-6 sorbitan stearate
PEG-6 stearate
PEG-6-32
PEG-6-32 stearate
PEG-7 glyceryl cocoate
PEG-7 hydrogenated castor oil
PEG-7 oleate
PEG-7.5 tallowamine
PEG-8
PEG-8 beeswax, P. castor oil
PEG-8 C12-14 ether
PEG-8 dilaurate, P. dioleate
PEG-8 distearate
PEG-8 glyceryl laurate
PEG-8 laurate, P. oleate
PEG-8, P. tallate
PEG-9 castor oil
PEG-9 diisostearate
PEG-9 dioleate, P. distearate
PEG-9 laurate, P. oleate
PEG-9 stearate
PEG-10 castor oil, P. cocamine
PEG-10 coconut oil esters
PEG-10 C12-18 alcohols
PEG-10 dioleate
PEG-10 glyceryl isostearate
PEG-10 hydrogenated castor oil
PEG-10 hydrogenated castor oil triisostearate
PEG-10 lanolate
PEG-10 polyglyceryl-2 laurate
PEG-10 sorbitan laurate
PEG-10 soy sterol, P. stearamine
PEG-10 stearate
PEG-11 babassu glycerides
PEG-11 castor oil
PEG-12 dilaurate, P. dioleate
PEG-12 distearate
PEG-12 glyceryl dioleate
PEG-12 laurate, P. oleate
PEG-12 stearate, P. tallate
PEG-14 avocado glycerides
PEG-15 castor oil
PEG-15 cocamine
PEG-15 glyceryl isostearate
PEG-15 glyceryl laurate
PEG-15 glyceryl ricinoleate
PEG-15 oleamine, P. oleate
PEG-15, P. stearamine
PEG-15 tallow amine
PEG-15 tallow polyamine
PEG-16
PEG-16 hydrogenated castor oil
PEG-16 soy sterol
PEG-18 stearate
PEG-20 almond glycerides
PEG-20 castor oil, P. dilaurate
PEG-20 dioleate, P. distearate
PEG-20 glyceryl laurate
PEG-20 glyceryl oleate
PEG-20 glyceryl stearate
PEG-20 glyceryl triisostearate
PEG-20 glyceryl tristearate
PEG-20 hydrogenated castor oil
PEG-20 hydrogenated lanolin
PEG-20 lanolin, P. laurate
PEG-20 oleate
PEG-20 methyl glucose sesquistearate
PEG-20 sorbitan beeswax
PEG-20 sorbitan isostearate
PEG-20 sorbitan triisosterate
PEG-20 sorbitan trioleate
PEG-20 stearate, P. tallow amine
PEG-23 oleate, P. stearate
PEG-24 hydrogenated lanolin
PEG-25 castor oil
PEG-25 phytosterol
PEG-25 propylene glycol stearate
PEG-25 soy sterol, P. stearate
PEG-29 castor oil
PEG-30 castor oil
PEG-30 dipolyhydroxystearate
PEG-30 glyceryl cocoate
PEG-30 glyceryl isostearate
PEG-30 glyceryl laurate
PEG-30 glyceryl oleate
PEG-30 glyceryl stearate
PEG-30 hydrogenated castor oil
PEG-30 lanolin
PEG-30 sorbitan tetraoleate
PEG-32 dilaurate, P. dioleate
PEG-32 distearate, P. laurate
PEG-32 oleate, P. stearate
PEG-33 castor oil
PEG-35 castor oil, P. stearate
PEG-40 castor oil
PEG-40 glyceryl isostearate
PEG-40 glyceryl laurate
PEG-40 glyceryl triisostearate
PEG-40 hydrogenated castor oil
PEG-40 hydrogenated castor oil PCA isostearate
PEG-40 sorbitan diisostearate
PEG-40 sorbitan lanolate
PEG-40 sorbitan tetraoleate
PEG-40 stearate
PEG-40/dodecyl glycol copolymer
PEG-42 babassu glycerides
PEG-44 sorbitan laurate
PEG-45 palm kernel glycerides
PEG-45 safflower glycerides
PEG-50 lanolin, P. stearamine
PEG-50 stearate
PEG-60 almond glycerides
PEG-60 castor oil
PEG-60 corn glycerides
PEG-60 glyceryl triisostearate
PEG-60 hydrogenated castor oil
PEG-60 hydrogenated castor oil isostearate
PEG-60 hydrogenated castor oil triisostearate
PEG-60 shea butter glycerides
PEG-60 sorbitan tetraoleate
PEG-70 mango glycerides
PEG-75
PEG-75 castor oil, P. dilaurate
PEG-75 dioleate, P. distearate
PEG-75 lanolin, P. laurate
PEG-75 oleate
PEG-75 shea butter glycerides
PEG-75 shorea butter glycerides
PEG-75 stearate
PEG-80 sorbitan laurate
PEG-90 stearate
PEG-100 castor oil
PEG-100 hydrogenated castor oil
PEG-100 lanolin, P. stearate
PEG-120 distearate
PEG-150 dilaurate, P. dioleate
PEG-150 distearate, P. lanolin
PEG-150 laurate, P. oleate
PEG-150 stearate
PEG-200 castor oil
PEG-200 glyceryl stearate
PEG-200 hydrogenated castor oil

PEG-200 laurate, P. oleate
PEG-400 laurate
Phosphate esters
Phosphated amine oxides
Phospholipids
Poloxamer 101, 105, 122, 123, 124
Poloxamer 181, 182, 184, 185, 235, 237
Poloxamer 238, 334, 338, 407
Polyglyceryl-2 oleate
Polyglyceryl-2 polyhydroxystearate
Polyglyceryl-2 sesquiisostearate
Polyglyceryl-2 stearate
Polyglyceryl-2-PEG-4-distearate
Polyglyceryl-2-PEG-4 stearate
Polyglyceryl-3 diisostearate, P. dioleate
Polyglyceryl-3 distearate
Polyglyceryl-3 methylglucose distearate
Polyglyceryl-3 oleate, P. polyricinoleate
Polyglyceryl-3 stearate
Polyglyceryl-4 oleate, P. stearate
Polyglyceryl-6 dioleate, P. distearate
Polyglyceryl-6 laurate, P. myristate
Polyglyceryl-6 oleate, P. polyricinoleate
Polyglyceryl-6 stearate
Polyglyceryl-8 oleate
Polyglyceryl-10 decaoleate
Polyglyceryl-10 diisostearate
Polyglyceryl-10 dioleate, P. dipalmitate
Polyglyceryl-10 distearate, P. isostearate
Polyglyceryl-10 laurate, P. linoleate
Polyglyceryl-10 mixed fatty acids
Polyglyceryl-10 myristate
Polyglyceryl-10 oleate
Polyglyceryl-10 pentastearate
Polyglyceryl-10 stearate
Polyglyceryl-10 tetraoleate
Polyglyceryl-10 trioleate
Polyoxyethylene polyoxypropylene glycol
Polyquaternium-5, -31
Polysorbate 20, 21, 40, 60, 61
Polysorbate 65, 80, 81, 85
Potassium alginate, P. cetyl phosphate
Potassium laurate, P. myristate
Potassium tallowate
PPG-1-PEG-9 lauryl glycol ether
PPG-2-ceteareth-9
PPG-3 isosteareth-9
PPG-3 PEG-6 oleyl ether
PPG-5-buteth-7
PPG-5-ceteth-20
PPG-5-ceteth-10 phosphate
PPG-8 oleate
PPG-10 cetyl ether phosphate
PPG-12-PEG-50 lanolin
PPG-15 stearyl ether
PPG-24-buteth-27
PPG-25 laureth-25
PPG-26-buteth-26
PPG-26 oleate
PPG-36 oleate
Propylene glycol alginate, P.g. dioleate
Propylene glycol hydroxystearate
Propylene glycol laurate, P.g. ricinoleate
Propylene glycol ricinoleate SE
Propylene glycol stearate
Propylene glycol stearate, SE
Quaternium-33
Rapeseedamidopropyl ethyldimonium ethosulfate
Rice (Oryza sativa) bran wax
Ricinoleamide DEA
Ricinoleic acid
Saponins
Selenium protein complex
Silicone quaternium-5, -6
Sodium acrylates/vinyl isodecanoate crosspolymer
Sodium caproyl lactylate
Sodium carbomer
Sodium cetyl sulfate
Sodium C12-15 pareth-15 sulfonate
Sodium isostearoyl lactylate
Sodium laureth-17 carboxylate
Sodium lauroyl lactylate
Sodium lauryl sulfate
Sodium nonoxynol-6 phosphate
Sodium octyl sulfate
Sodium oleate
Sodium oleyl sulfate
Sodium phosphate
Sodium stearoyl lactylate
Sorbeth-20
Sorbitan isostearate, S. laurate
Sorbitan oleate, S. palmitate
Sorbitan sesquiisostearate
Sorbitan sesquioleate, S. sesquistearate
Sorbitan stearate, S. triisostearate
Sorbitan trioleate, S. tristearate
Soyamidopropyl dimethylamine
Soyamine
Stearamide DEA
Stearamide DIBA-stearate
Stearamidoethyl diethylamine
Stearamidopropyl dimethylamine lactate
Stearamidopropyl PG-dimonium chloride phosphate
Stearamine
Stearamine oxide
Steareth-2, -4, -6, -7, -10, -11, -13
Steareth-2 phosphate
Steareth-15, -20, -21, -30, -100
Stearic acid
Sucrose cocoate, S. distearate
Sucrose stearate
Synthetic beeswax
Tallow glyceride, acetylated hydrogenated
Tallowamide DEA
Tallowamidopropyl dimethylamine
Talloweth-6
Tetrasodium dicarboxyethyl stearyl sulfosuccinamide
TEA-acrylates/acrylonitrogens copolymer
Tissue extract
Triceteareth-4 phosphate
Trideceth-3, -5, -6, -7, -8
Trideceth-9, -10, -12, -15
Tridecyl ethoxylate
Triethanolamine
Trilaureth-4 phosphate
Triolein
Trisodium HEDTA
Tristearin

Enzyme
Fermented vegetable
Ganoderma lucidum oil
Lipase
Papain
Soy (Glycine soja) protein
Superoxide dismutase

Essential oil
Aesculus chinensis extract
Artemisia apiacea extract
Brassica rapa-depressa extract
Caraway (Carum carvi) oil
Cardamon (Elettaria cardamomum) oil
Clove (Eugenia caryophyllus) oil
Eclipta alba extract
Eucalyptus globulus oil
Euphotorium fortunei extract
Euterpe precatoria extract
Hierochloe odorata extract
Kadsura heteliloca extract

Functions

Ligustrum lucidum extract
Lysimachia foenum-graecum extract
Melaleuca bracteata extract
Melaleuca hypercifolia extract
Melaleuca symphyocarp extract
Melaleuca uncinata extract
Melaleuca wilsonii extract
Nasturtium sinensis extract
Nelumbium speciosum extract
Paulownia imperialis extract
Rosemary (Rosmarinus officinalis) oil
Selinum spp. extract
Trichomonas japonica extract
Withania somniferum extract
Yuzu oil
Ziziphus jujuba extract

Exfoliant
Apricot (Prunus armeniaca) kernel powder
Glycolic acid
Jojoba (Buxus chinensis) seed powder
Lactic acid
Papain
PEG 11-Avocado Glycerdies
Willow (Salix alba) bark extract

Fiber
Corn (Zea mays) cob powder
Nylon-66
Oat (Avena sativa) bran, meal
Rayon

Film former
Acetylated lanolin
Acrylates/hydroxyesters acrylates copolymer
Acrylates/octylarylamide copolymer
Acrylates copolymer
Alkylated polyvinylpyrrolidone
Ammonium acrylates/acrylonitrogens copolymer
Betaglucan
Bladderwrack (Fucus vesiculosus) extract
Carboxymethylchitosan
N,O-Carboxymethylchitosonium
Chitosan lactate
Collagen
Collagen phthalate
Colloidal oatmeal
Desamido collagen
Diisostearoyl trimethylolpropane siloxy silicate
DMHF
Ethyl ester of hydrolyzed silk
Ethylcellulose
Gellan gum
Glycerin/diethylene glycol/adipate crosspolymer
High beta-glucan barley flour
Hydrolyzed collagen
Hydrolyzed keratin
Hydrolyzed oat protein
Hydrolyzed pea protein
Hydrolyzed reticulin
Hydrolyzed RNA
Hydrolyzed silk
Hydrolyzed soy protein
Hydrolyzed wheat protein
Hydrolyzed wheat protein/dimethicone copolyol phosphate copolymer
Hydrolyzed wheat protein/PVP copolymer
Hydroxypropylcellulose
Hydroxypropyltrimonium gelatin
Jojoba (Buxus chinensis) oil
Lactoglobolin
Myristoyl hydrolyzed collagen
Nitrocellulose
Oat (Avena sativa) extract, protein
Polyethylene, ionomer
Polyquaternium-6, -7, -11, -22, -39
Polyvinyl acetate, P. alcohol
Procollagen
PVM/MA decadiene crosspolymer
PVP/Dimethiconylacrylate/polycarbamyl/polyglycol ester
PVP/dimethylaminoethylmethacrylate copolymer
PVP/dimethylaminoethylmethacrylate/polycarbamyl/polyglycol ester
PVP/eicosene copolymer
PVP/hexadecene copolymer
PVP/hydrolyzed wheat protein copolymer
Rice peptide
Sericin
Shea butter (Butyrospermum parkii)
Shellac
Sodium C12-15 pareth-7 sulfonate
Sodium hyaluronate
Soluble collagen
Soluble keratin
Soluble wheat protein
TEA-acrylates/acrylonitrogens copolymer
Tosylamide/epoxy resin
Tricontanyl PVP
Triethonium hydrolyzed collagen ethosulfate
Wheat peptide

Fixative
Acrylates copolymer
Adipic acid/dimethylaminohydroxypropyl diethylene triamine copolymer
AMP-acrylates copolymer
Hydrolyzed zein
Methacryloyl ethyl betaine/acrylates copolymer
Methyl rosinate
Polyquaternium-4, -10, -29
PPG-20 methyl glucose ether
Sodium polystyrene sulfonate

Flavor (aroma)
Benzaldehyde
Caraway (Carum carvi) oil
Cardamon (Elettaria cardamomum) oil
Cinnamon (Cinnamomum casia) oil
Clove (Eugenia caryophyllus) oil
Ethyl vanillin
Eucalyptus globulus oil
Flavor (aroma)
Glutamic acid
Glycyrrhetinic acid
Glycyrrhizic acid
Glycyrrhizin, ammoniated
Methyl salicylate
Orange (Citrus aurantium dulcis) oil
Peppermint (Mentha piperita) oil
Rosemary (Rosmarinus officinalis) oil
Sodium glycyrrhizinate
Thymol
Vanillin

Foam booster
Alkyldimethylamine oxide
Babassuamidopropyl betaine
Babassuamidopropylamine oxide
Caprylyl pyrrolidone
Carrageenan (Chondrus crispus)
Cocamide DEA, C. MIPA
Cocamidopropyl betaine
Cocamidopropyl dimethylamine lactate
Cocamidopropyl hydroxysultaine
Coco-betaine
Coco/oleamidopropyl betaine
Cocoyl amido hydroxy sulfo betaine
Cocoyl monoethanolamide ethoxylate
DEA-hydrolyzed lecithin
Dimethyl lauramine
Disodium cocamido MEA-sulfosuccinate
Disodium cocoamphodiacetate
Disodium lauramido MEA-sulfosuccinate
Disodium laureth sulfosuccinate
Lauramide MIPA
Lauramidopropyl betaine
Lauryl betaine
Myristamidopropyl dimethylamine dimethicone copolyol phosphate
Myristamine oxide
Octyldodecyl benzoate
Oleamide DEA, O. MIPA
Oleyl betaine
Palm kernelamide DEA
PEG-3 lauramine oxide
PPG-15 stearyl ether benzoate
PEG-7000
Sodium cocoamphoacetate
Sodium cocoyl isethionate
Sodium laureth sulfate
Sodium lauroyl wheat amino acids
Sodium octoxynol-2 ethane sulfonate
Soyamidopropyl betaine
Tallowamide MEA

Foam stabilizer
Babassuamidopropylamine oxide
Behenamine oxide
Caprylyl pyrrolidone
Cetamine oxide
Cocamide DEA, C. MEA, C. MIPA
Cocamidopropyl betaine
Cocamidopropyl hydroxysultaine
Cocamidopropyl lauryl ether
Cocamidopropylamine oxide
Cocamine oxide
Dihydroxyethyl C12-15 alkoxypropylamine oxide
Dihydroxyethyl cocamine oxide
Dihydroxyethyl tallowamine oxide
Erucamidopropyl hydroxysultaine
Hydroxypropyl methylcellulose
Isostearamide DEA
Lauramide DEA, L. MEA
Lauramidopropylamine oxide
Lauramine oxide
Laureth-10
Lauric-linoleic DEA
Lauroyl-linoleoyl diethanolamide
Lauroyl-myristoyl diethanolamide
Lauryl pyrrolidone
Linoleamide MEA
Myristamide DEA, M. MEA
Oleamide MEA
Palmitamide MEA
PEG-3 lauramide
PEG-4 oleamide
Ricinoleamide MEA
Sesamide DEA
Wheat germamide DEA

Foamer
Ammonium laureth sulfate
Ammonium laureth-5 sulfate
Ammonium laureth-12 sulfate
Ammonium lauryl sulfate, A. l. sulfosuccinate
Ammonium myreth sulfate
Ammonium nonoxynol 4 sulfate
Capryl caprylylglucoside
Cetyl betaine
Cocamide
Cocamidopropyl dimethylamine
Cocamidopropyl dimethylamine lactate
DEA-laureth sulfate
DEA lauryl sulfate
Decyl glucoside
Disodium caproamphodiacetate
Disodium caproamphodipropionate
Disodium capryloamphodiacetate
Disodium cocoamphodipropionate
Disodium lauroamphodiacetate
Disodium lauroamphodipropiunate
Disodium lauryl sulfosuccinate
Disodium oleamido MEA-sulfosuccinate

Functions

Disodium oleamido MIPA-sulfosuccinate
Disodium PEG-4 cocoamido MIPA-sulfosuccinate
Isostearamidopropylamine oxide
Lauryl glucoside
Methyl gluceth-20
MEA-laureth sulfate
Mixed isopropanolamines myristate
MIPA-lauryl sulfate
PEG-80 sorbitan laurate
PEG lauryl ether sulfate
Potassium cocoate, P. lauryl sulfate
Quilleja saponarie extract
Sodium caproamphoacetate
Sodium capryloemphoacetate
Sodium capryloamphohydroxypropylsulfonate
Sodium cocoamphoacetate
Sodium cocoamphopropionete
Sodium C12-15 pareth-25 sulfate
Sodium C12-15 pareth-3 sulfonete
Sodium C12-15 pareth-15 sulfonate
Sodium C14-16 olefin sulfonate
Sodium deceth sulfete
Sodium laureth-2 sulfete
Sodium laureth-3 sulfate
Sodium leureth-7 sulfete
Sodium leuriminodipropionate
Sodium leurylether sulfosuccinate
Sodium leuryl sulfete, S. l. sulfoacetate
Sodium leuryl sulfosuccinate
Sodium magnesium laureth sulfate
Sodium myreth sulfate, S. myristyl sulfate
Sodium trideceth sulfete
Sodium tridecyl sulfete
TEA-dodecylbenzenesulfonate
TEA-laureth sulfete
TEA-lauroyl collagen amino acids
TEA-lauroyl keratin emino acids
TEA-lauryl sulfate
TEA-pelm kernel sarcosinate
Wheat germamidopropyl betaine
Yucca vera extract

Fragrance
Chamaecyparis obtusa oil
Orange (Citrus aurantium dulcis) oil
Peppermint (Menthe piperita) oil
Phenethyl alcohol

Fragrance solvent
Benzyl benzoate
Diethyl phthalate
Triacetin
Triethyl citrate

Fungicide
Astrocaryum murumuru extract
Azadirachta indica extract
Ceptan
Diiodomethyltolylsulfone
Ficus racemosa extrect
Hexetidine
Ligusticum jeholense extract
Mauritia flexosa extract
Melaleuca symphyocerp extract
Melia australasice extract
Melie azadirachte extract
Mushroom (Cordyceps sabolifera) extract
Mushroom (Coriolus versicolor) extract
Sodium undecylenate
Tee tree (Melaleuca alternifolia) oil
Thiabendazole
Uodecylenamide MEA
Zinc undecylenate
Ziziphus jujuba extract

Gellant
Acrylic acid/acrylonitrogens copolymer
Agar
Algin
Aluminum distearate, A. tristearate
Ammonium acrylates/acrylonitrogens copolymer
Behenic acid
Calcium alginate
Carbomer
Carboxymethylchitosan
N,O-Carboxymethylchitosonium
Carrageenan (Chondrus crispus)
Ceresin
Cetearyl candelillate
Dibenzylidene sorbitol
Ethylene/acrylic acid copolymer
Ethylene/VA copolymer
Gellan gum
Hexanediol behenyl beeswax
Hydrogenated jojoba oil
Hydrogenated jojoba wax
Hydroxystearic acid
Jojoba wax
Laneth-5, -15
Montmorillonite
Myreth-3-octenoate
Octacosanyl stearate
Oleth-3 phosphate
Oleth-10 phosphate
Poloxamer 105, 123, 124, 185, 235
Poloxamer 237, 238, 338, 407
Polyethylene
Polyethylene, oxidized
Polyquaternium-31
Potassium elginate, P. chloride
Sodium nonoxynol-6 phosphate
Sodium tallowate
Synthetic beeswax
TEA-acrylates/acrylonitrogens copolymer
Tribehenin

Glosser
C18-36 ecid glycol ester
Diphenyl dimethicone
Methyl gluceth-10
Octyldodecyl lactate
Phenyl methicone, P. trimethicone
Polyglyceryl-2 dioleate
Polyisobutene
Polyisobutene/isohexapentacontahectane
Polyisobutene/isooctahexacontane
Polymethacrylamidopropyltrimonium chloride
PPG-10 methyl glucose ether
PPG-36 oleate
Tea (Camellie sinensis) oil
Tribehenin

Hair care
Gentiana scabra extract
Maidenhair fern extract
Nicotinamide
Nicotinic acid
Paeonia lactiflorum extract
Watercress (Nasturtium officinale) extract

Hair conditioner
Amino bispropyl dimethicone
Amodimethicone
AMPD-isostearoyl hydrolyzed collagen
Aqua Ichthammol
Babassu (Orbignya oleifera) oil
Babassuamidopropalkonium chloride
Behenamidopropyl dimethylamine
Behenamidopropyl hydroxyethyl dimonium chloride
Behentrimonium chloride
Biotin
Bishydroxyethyl biscetyl malonamide
Borageamidopropyl phosphatidyl PG-dimonium chloride
Brazil nut (Bertholettia excelsa) oil
Cetearyl trimonium methosulphate
Cetrimonium bromide, C. chloride
Cetyl pyridinium chloride
Chia (Salvie hispanica) oil
Chrysanthemum morifolium extract
Cinchona succirubra extract
Cocamidopropyl dimethylamine propionate
Coccinea indica extract
Cocodimonium hydroxypropyl hydrolyzed collagen
Cocodimonium hydroxypropyl hydrolyzed keratin
Cocodimonium hydroxypropyl silk amino acids
Cocodimonium hydroxypropyl hydrolyzed wheat protein
Cocodimonium hydroxypropyloxyethyl cellulose
Cocotrimonium chloride
Collagen emino acids
Cyclomethicone
L-cysteine HCL
Dibehenyldimonium methosulfete
Dicetyldimonium chloride
Dicocodimonium chloride
Dihydroxyethyl tallowemine oleate
Dimethicone
Dimethicone copolyol acetate, D. c. almondete
Dimethicone copolyol amine
Dimethicone copolyol bishydroxyethylamine
Dimethicone copolyol isosteerate, D. c. leurate
Dimethicone copolyol olivete
Dimethicone hydroxypropyl trimonium chloride
Dimethyl lauremine dimer dilinoleate
Dioleylamidoethyl hydroxyethylmonium methosulfete
Dipalmitoylethyl hydroxyethylmonium methosulfate
Diphenyl dimethicone
Ditallowdimonium chloride
N-Dodecyl-N,N-dimethyl-N-(dodecyl acetate) ammonium chloride
Entada phaseoloides extract
Ethyl ester of hydrolyzed enimel protein
Gelatin
Ginseng hydroxypropyltrimonium chloride butylene glycol
Henetin
Honey (Mel)
Hydrolyzed collegen
Hydrolyzed hair keratin
Hydrolyzed vegetable protein
Hydrolyzed wheet protein/dimethicone copolyol acetyl copolymer
Hydrolyzed wheat protein hydroxypropyl polysiloxane
Hydroxyethyl cetyldimonium phosphate
Hydroxypropyltrimonium hydrolyzed collagen
Hydroxypropyl trimonium hydrolyzed wheat protein polysiloxane copolymer
Hyssop (Hyssopus officinalis) extract
Inga edulis extract
Isostearamidopropylamine oxide
Isostearoyl hydrolyzed collagen
Keratin amino acids
Kiwi (Actinidia chinensis) fruit extract
Kole (Cola ecuminata) extract
Laminaria japonica extract
Laurtrimonium chloride
Lauryl hydroxypropyl trimonium polysiloxene copolymer
Lauryldimethylamine isosteerate
Lauryldimonium hydroxypropyl hydrolyzed collegen
Lauryldimonium hydroxypropyl hydrolyzed wheat protein
Linoleamidopropyl dimethylamine dimer dilinoleate
Linoleamidopropyldimethylamine
Lysimachia foenum-graecum extract
Melaleuca hypercifolia extract
Ocimum santum extract
Olealkonium chloride

Functions

Oleyl dimethylamidopropyl ethonium ethosulfate
Palmitamidodecanediol
Paothenyl ethyl ether
Paulownia imperialis extract
Peach (Prunus persica) leaf extract
PEG-2 cocomonium chloride
PEG-120 jojoba acid/alcohol
PG-hydroxycellulose lauryldimonium chloride
PG-hydroxyethylcellulose cocodimonium chloride
PG-hydroxyethylcellulose lauryldimonium chloride
PG-hydroxyethylcellulose stearyldimonium chloride
Phenyl trimethicone
Phospholipids
Phytantriol
Polyoxyethylene polyoxypropylene glycol
Polypropylene glycol
Polyquaternium-4, -6, -7, -10
Polyquaternium-22, -28, -39
PPG-5-ceteth-10 phosphate
Propyltrimonium hydrolyzed collagen
Propyltrimonium hydrolyzed soy protein
Propyltrimonium hydrolyzed wheat protein
Quaternium-18, -75, -81, -82
Quaternium-79 hydrolyzed keratio
Quaternium-79 hydrolyzed silk
Sambucus nigra extract, oil
Sesamidopropalkonium chloride
Silicone quaternium-1,-8
Sodium cocoamphoacetate
Sodium cocoyl hydrolyzed collagen
Sodium polystyrene sulfonate
N-Soya-(3-amidopropyl)-N,N-dimethyl-N-ethyl ammonium ethyl sulfate
Steapyrium chloride
Stearalkonium chloride
Stearamidopropyl dimethylamine
Steardimonium hydroxypropyl hydrolyzed wheat protein
Steartrimonium chloride
Steartrimonium hydroxyethyl hydrolyzed collagen
N-Stearyl-(3-amidopropyl)-N,N-dimethyl-N-ethyl ammonium ethyl sulfate
Stenocalyx miealii extract
Sulfur
Tallowbenzyldimethylammonium chloride, hydrogenated
Tallowtrimonium chloride
Tea (Camellia sinensis) oil
TEA-cocoyl hydrolyzed soy protein
Thenoyl methionate
Trimethylsilylamodimethicone
Wheat amino aeids

Hair set resin polymer

Acrylates/aerylamide eopolymer
Acrylates/PVP eopolymer
Acrylates/hydroxyesters acrylates copolymer
Acrylates/oetylarylamide copolymer
AMP-acrylates copolymer
Butylester of PVM-MA copolymer
Carboxylated vinylacetate terpolymer
Diglycol/CHDM/isophthalates/SIP copolymer
Eclipta alba extract
Ethyl ester of PVM/MA eopolymer
Hydroxypropyl chitosan
Isopropyl ester of PVM/MA copolymer
Octylacrylamide/acrylates/butylaminoethyl methacrylate eopolymer
Polymethacrylamidopropyltrimonium ehloride
Polypropylene glyeol oligosuceinate
PVP
PVP/dimethylaminoethylmethacrylate copolymer
PVP/Polycarbamyl polyglycol ester
PVP/VA copolymer
PVP/VA/vinyl propionate copolymer
Sodium polyacrylate
VA/butyl maleate/isobornyl acrylate copolymer
VA/crotonates/vioyl neodecanoate copolymer
VA/crotonates/vinyl propionate copolymer
VA/crotonates copolymer
Vinyl caprolactam/PVP/ dimethylaminoethylmethacrylate copolymer

Hair sheen

Maidenhair fern extract
Tetrabutoxypropyl methicone

Hair waving

Ammonium thioglycolate, A. thiolactate
Argania spinosa oil
L-cysteine HCL
Cystine
Diammonium dithiodiglycolate
Dilauryl thiodipropionate
Ethanolamine sulfite, E. thioglycolate
Ethanolamine thiolactate
Glyceryl thioglycolate
Hydroxymethyl dioxoazabicyclooctane
Jojoba esters
Monoethanolamine thiolactate
Shea butter, ethoxylated
Sodium thioglycolate
Thioglycerio
Thioglycolic acid
Thiolactic acid

Humectant

Acetamide MEA
Acetyl monoethanolamine
6-(N-Acetylamino)-4-oxyhexyltrimonium chloride
Adenosine phosphate
Ammonium lactate
Atelocollagen
Calcium pantothenate
Calcium stearoyl lactylate
Carboxymethyl chitin
Carboxymethyl chitosan succioamide
Chitosan PCA
Cholesteryl hydroxystearate
Collagen amino-polysiloxane hydrolyzate
Colloidal oatmeal
Copper PCA methylsilanol
Dimethicone copolyol laurate
Dipotassium glycyrrhizinate
Ethyl ester of hydrolyzed silk
Fatty quaternary amine chloride complex
Glucose glutamate
Glycereth-4.5-lactate
Glycereth-7, -12, -26
Glycerin
Honey extract
Hydrogenated passion fruit oil
Hydrolyzed caseio
Hydrolyzed fibronectin
Hydrolyzed glycosaminoglycans
Hydrolyzed oat protein
Hydrolyzed silk
Hydrolyzed soy protein
Hydroxypropyl chitosan
Hydroxypropyltrimonium hydrolyzed casein
Hydroxypropyltrimonium hydrolyzed silk
Hydroxypropyltrimonium hydrolyzed soy protein
Hydroxypropyltrimonium hydrolyzed wheat protein
Keratin amino acids
Lactamide DGA, MEA
Lactamidopropyl trimonium chloride
Lactic acid
Lactose
Lauroyl lysine
Maltitol
Mannitol
Methyl gluceth-10, -20
Natto gum
Oat (Avena sativa) extract, protein
Panthenol
Pantheoyl ethyl ether
PCA
PEG-4
Polyamino sugar eondensate
Potassium lactate
Propylene glycol
Propyltrimonium hydrolyzed collagen
Propyltrimonium hydrolyzed soy protein
Propyltrimonium hydrolyzed wheat protein
Quaternium-22
Rice (Oryza sativa) germ oil
Sea Salts (Maris sal)
Shea butter (Butyrospermum parkii)
Silk powder
Sodium behenoyl lactylate
Sodium eaproyl lactylate
Sodium cocoyl lactylate
Sodium hyaluronate
Sodium isostearoyl lactylate
Sodium lactate, S. lauroyl lactylate, S. PCA
Sodium polyglutamate
Sodium stearoyl lactylate
Sorbitan laurate
Sorbitan sesquiisostearate
Sorbitol
Sphingolipids
TEA-PCA
Urea

Hydrotrope

Ammonium cumeoesulfonate
Ammonium xylenesulfonate
Cetamine oxide
Cocamidopropylamine oxide
Lauramine oxide
Potassium toluenesulfonate
PPG-2-isodeceth-4, -6, -9, -12
Sodium cumene sulfonate
Sodium laureth-13-carboxylate
Sodium toluene sulfonate
Sodium xylene sulfooate
Trideceth-19-carboxylic acid

Intermediate

Caprylic acid
Deceth-3
Diethyl succinate
Dimethylaminopropylamine
DM hydantoin
Dodecylbenzene sulfonic acid
Ethylene dichloride
4-Fluoro 3-nitro aniline
Lauramine
Methyl benzoate, M. cocoate
Methyl isostearate, M. laurate
Methyl myristate, M. palmitate
Oleic acid
Ricinoleic acid
Tall oil acid
Tallow aeid

Lathering agent

Ammonium cocoyl sarcosinate
Ammonium C12-15 alkyl sulfate
Ammonium lauroyl sarcosinate
Cocamide MEA ethoxylate
Cocamidopropyl dimethylaminohydroxypropyl hydrolyzed collageo
Lauroyl sarcosioe
Myristoyl sarcosine
Sodium cocoyl sarcosinate
Sodium lauroyl sarcosinate
Sodium methyl cocoyl taurate
Sodium myristoyl sarcosioate
TEA-cocoyl sarcosinate
TEA-lauroyl sarcosinate

Lubricant

Aluminum salt oetenyl succinate
Amodimethicone

Boron nitride
Calcium aluminum borosilicate
Calcium stearate
Caprylic/capric triglyceride
Coceth-7 carboxylic acid
Coconut (Cocos nucifera) oil
Cyclomethicone
Diisodecyl adipate
Diisostearyl fumarate
Dimethicone copolyol
Glyceryl isostearate, G. oleate
Glyceryl polymethacrylate
Gold of Pleasure oil
Hyaluronic acid
Hydrogenated coconut oil
Hydrogenated cottonseed oil
Hydrogenated palm oil
Hydrogenated soybean/cottonseed oil
Hydrogenated soybean oil
Hydrogenated vegetable oil
Hydrolyzed oat flour
Hydroxypropyl guar
Isodecyl stearate
Isopropyl lanolate
Isostearyl diglyceryl succinate
Jojoba esters
Lanolin oil
Laureth-3 phosphate
Magnesium myristate, M. stearate
Mango (Mangifera indica) oil
Mineral oil (Paraffinum liquidum)
Mink oil
Monostearyl citrate
Neatsfoot oil
Oleostearine
Partially hydrogenated soybean oil
PEG-2 stearate
PEG-4 dilaurate
PEG-5M
PEG-9M
PEG-23M
PEG-27 lanolin
PEG-30 lanolin
PEG-40 lanolin, P. stearate
PEG-45M
PEG-90M
PEG-160M
PEG/PPG-17/6 copolymer
Pentaerythrityl tetrapelargonate
Petrolatum
Phenethyl dimethicone
Phenyl methicone
Polyacrylamidomethylpropane sulfonic acid
Polybutene
Polydimethicone copolyol
Polyglycerol ester of mixed vegetable fatty acids
Polymethylsilsesquioxane
Potassium laurate, P. myristate
Potassium tallowate
PPG-2 myristyl ether propionate
PPG-3 myristyl ether
PPG-9-buteth-12
PPG-11 stearyl ether
PPG-12-buteth-16
PPG-12-PEG-50 lanolin
PPG-14 butyl ether
PPG-20 cetyl ether
PPG-20-buteth-30
PPG-24-buteth-27
PPG-28-buteth-35
PPG-36 oleate
PPG-40 butyl ether
Quaternium-79 hydrolyzed keratin
Quaternium-79 hydrolyzed silk
Rice (Oryza sativa) starch
Shea butter (Butyrospermum parkii) extract
Shorea stenoptera butter
Silica
Stearamide MEA, S. MEA-stearate
Stearoxytrimethylsilane
Stearyl dimethicone
Triisostearyl citrate
Triolein
Trisodium HEDTA
Triundecanoin
Zinc laurate, Z. stearate

Miscellaneous

Adhesion promoter—Glycerin/diethylene glycol/adipate crosspolymer
Analgesic—Glycol salicylate
Anesthetic—Benzocaine
Anti-elastic—Hydrolyzed Ulva lactuca extract
Anti-itching—Sodium shale oil sulfonate
Antiacid—Magnesium hydroxide, Magnesium silicate, Simethicone
Antifoam—Dimethicone silylate, Simethicone
Antilipasic—Laminaria saccharina extract
Antipruritic—Coal tar
Antispasmodic—Garlic (Allium sativum) extract
Antiwrinkle—Chinese hibiscus (Hibiscus rosa-sinensis) extract
Barrier—Glycerin/diethylene glycol/adipate crosspolymer
Cell regeneration—Glycoproteins, Hydrolyzed Ulva lactuca extract
Co-emulsifier—Cholesteryl/behenyl/octyldodecyl lauroyl glutamate, Isododecane
Colloid—Gelatin
Cooling agent—Menthyl PCA, Menthone glycerin acetal
Detoxifier—Clover (Trifolium pratense) extract
Dye stabilizer—Uric acid
Filler—Mica
Fragrance stabilizer—2,2',4,4'-Tetrahydroxybenzophenone
Free radical scavenger—Melanin
IR filter—Corallina officinalis
Lanolin substitute—PEG-80 jojoba acid/alcohol
Lipolytic—Gelidium cartilagineum
Oxidant—Barium peroxide, Hydrogen peroxide, Urea peroxide
Oxygen carrier—Perfluorodecalin
Peroxide stabilizer—Phenacetin, Sodium stannate
Scalp stimulant—Birch (Betula alba) leaf extract
Sebostatic—Laminaria saccharina extract
Shine enhancer—Hydrolyzed wheat protein hydroxypropyl polysiloxane
Skin barrier lipid—Ceramide 3, N(27-Stearoyloxy-heptacosanoyl) phytosphingosine
Skin clarifier—Oat (Avena sativa) bran extract
Skin purifier—Birch (Betula alba) leaf extract
Substantivity—Dimethicone copolyol bishydroxyethylamine, Dimethicone hydroxypropyl trimonium chloride, Trimethylsilylamodimethicone
Sunless tanning—Acetyl tyrosine, Eclipta alba extract in white emulsion
Tonic—Kiwi (Actinidia chinensis) fruit extract, Matricaria (Chamomilla recutita) extract, Orange (Citrus aurantium dulcis) peel extract
Viscosity stabilizer—Diisodecyl adipate
Spreading agent—Stearyl heptanoate
Wound healing—Comfrey (Symphytum officinale) leaf extract
Waterproofing agent—PVP/eicosene copolymer, PVP/hexadecene copolymer, Tricontanyl PVP

Moisture barrier

Acrylates/octylacrylamide copolymer
Betaglucan
C16-18 alkyl methicone
Cholesterol
Glycolipids
Isoeicosane

Functions

Isohexadecane
Lanosterol
Octyl pelargonate, O. stearate
Polyisobutene
Polyisobutene/isohexapentacontahectane
Polyisobutene/isooctahexacontane
Silica silylate
Trihydroxypalmitamidohydroxy propyl myristyl ether
Trimethylsiloxysilicate

Moisturizer

Acetamidopropyl trimonium chloride
Adenosine triphosphate
Aesculus chinensis extract
Algae (Ascophyllum nodosum) extract
Algae extract
Aloe barbadensis, A. b. extract
Ammonium lactate
Amniotic fluid
Apple (Pyrus malus) extract
Apricot (Prunus armeniaca) kernel oil
Arginine PCA
Atelocollagen
Artemisia apiacea extract
Astrocaryum murumuru extract
Avocado (Persea gratissima) extract, oil
Avocado (Persea gratissima) unsaponifiables
Babassu (Orbignya oleifera) oil
Bactris gasipaes extract
Benincasa hispids extract
Betaglucan
Betaine
Borage (Borago officinalis) seed oil
Brazil nut (Bertholettia excelsa) extract, oil
C10-30 cholesterol/lanosterol esters
Calcium pantothenate
Calcium protein complex
Caprylic/capric triglyceride
Caprylic/capric/lauric triglyceride
Caprylic/capric/linoleic triglyceride
Caprylic/capric/oleic triglycerides
Cashew (Anacardium occidentale) nut oil
Celastrus paniculata extract
Ceramide 33 (liquid soy extract)
Chia (Salvia hispanica) oil
Chinese hibiscus (Hibiscus rosa-sinensis) extract
Chitin
Chitosan, C. PCA
Cholesteric esters
Cholesterol
Cholesteryl/behenyl/octyldodecyl lauroyl glutamate
Cocodimonium hydroxypropyl hydrolyzed collagen
Cocodimonium hydroxypropyl hydrolyzed silk
Cocodimonium hydroxypropyl hydrolyzed wheat protein
Cocodimonium hydroxypropyl silk amino acids
Collagen
Collagen amino acids, C. phthalate
Copper aspartate, C. protein complex
Corn (Zea mays) oil
Cottonseed (Gossyplum) oil
Crataegus cuneata extract
Cucumber (Cucumis sativus) extract
Desamido collagen
Dicaprylyl maleate
Diisocetyl dodecanedioate
Diisostearyl adipate
Dimethyl hyaluronate
Dimethylsilanol hyaluronate
Dioctyldodecyl dimer dilinoleate
Dioctyldodecyl dodecanedioate
Dipentaerythritol fatty acid ester
Dog rose (Rosa canina) hips extract
Dog rose (Rosa canina) seed extract
Echites glauca extract
Elastin amino acids
Emblica officinalis extract
Ethyl minkate
Eugenia jambolana extract
Evening primrose (Oenothera biennis) extract, oil
Galla sinensis extract
Ganoderma lucidum oil
Ginseng (Panax ginseng) extract
Gleditsia sinensis extract
Glycereth-12
Glyceryl alginate, G. collagenate
Glyceryl polymethacrylate
Glycolic acid
Glycolipids
Glycosaminoglycans
Glycosphingolipids
Gnetum amazonicum extract
Grape (Vitis vinifera) seed oil
Hazel (Corylus avellana) nut oil
Honey extract
Hyaluronic acid
Hybrid safflower (Carthamus tinctorius) oil
Hydrogenated castor oil
Hydrogenated coconut oil
Hydrogenated cottonseed oil
Hydrogenated lecithin
Hydrogenated palm oil
Hydrogenated polyisobutene
Hydrogenated soybean oil
Hydrogenated soybean/cottonseed oil
Hydrogenated vegetable oil
Hydrolyzed carbolipoprotein
Hydrolyzed collagen
Hydrolyzed elastin
Hydrolyzed fibronectin
Hydrolyzed glycosaminoglycans
Hydrolyzed keratin
Hydrolyzed milk protein
Hydrolyzed oats
Hydrolyzed pea protein
Hydrolyzed placental protein
Hydrolyzed rice protein
Hydrolyzed transgenic collagen
Hydrolyzed serum protein
Hydrolyzed silk
Hydrolyzed sweet almond protein
Hydrolyzed wheat protein
Hydroxyethyl chitosan
Inositol
Isodecyl salicylate
Isostearyl hydrolyzed animal protein
Jojoba (Buxus chinensis) oil
Jojoba esters
Keratin amino acids
Kiwi (Actinidia chinensis) fruit extract
Kola (Cola acuminata) extract
Kukui (Aleurites moluccana) nut oil
Lactamide DGA, L. MEA
Lactic acid
Lactobacillus/whey ferment
Lactococcus hydrolysate
Lactoyl methylsilanol elastinate
Lanolin alcohol
Lauryl PCA
Lecithin
Lesquerella fendleri oil
Liposomes
Lysine PCA
Macadamia ternifolia nut oil
Magnesium aspartate
Maltitol
Manganese aspartate
Mango (Mangifera indica) oil
Mannan
Marine polyaminosaccharide
Mauritella armata extract
Maximilliana regia extract
Meadowfoam (Limnanthes alba) seed oil
Melaleuca hypercifolia extract
Methylsilanol elastinate, M. mannuronate
Milk amino acids
Mineral oil (Paraffinum liquidum)
Molybdenum aspartate
Mouriri apiranga extract
Natto gum
Nelumbium speciosum extract
Neopentyl glycol dicaprate
Oat (Avena sativa) protein
Octyl hydroxystearate
Ophiopogon japonicus extract
Orange (Citrus aurantium dulcis) peel wax
Palmetto extract
Pantethine
Panthenyl ethyl ether
Paraffin
Partially hydrogenated soybean oil
Peanut (Arachis hypogaea) oil
Pecan (Carya illinoensis) oil
PEG-4, -6, -8, -12
PEG-70 mango glycerides
PEG-75 shea butter glycerides
PEG-75 shorea butter glycerides
PEG-100 stearate
Pentaerythrityl isostearate/caprate/caprylate/adipate
Pentaerythrityl stearate/caprate/caprylate/adipate
Pentylene glycol
Perfluoropolymethylisopropyl ether
Petrolatum
Petroleum wax
Pfaffia spp. extract
Pistachio (Pistacia vera) nut oil
Placental protein
Plankton extract
Polyamino sugar condensate
Polybutene
Polyunsaturated fatty acids
Potassium DNA, P. lactate, P. PCA
PPG-8/SMDI copolymer
PPG-20 methyl glucose ether distearate
Propylene glycol dicaprylate/dicaprate
Propylene glycol dioctanoate
Pumpkin (Cucurbita pepo) seed oil
Quinoa (Chenopodium quinoa) extract
Rapeseed (Brassica campestris) oil
Rehmannia chinensis extract
Rice (Oryza sativa) bran oil
Rose Water
Royal jelly extract
Saccharide isomerate
Saccharomyces lysate extract
Saccharomyces/soy protein ferment
Safflower (Carthamus tinctorius) oil
Selenium aspartate, S. protein complex
Sericin
Serum albumin
Sesame (Sesamum indicum) oil
Shea butter (Butyrospermum parkii)
Shea butter (Butyrospermum parkii) extract
Shorea stenoptera butter
Silk amino acids
Sodium carboxymethyl beta-glucan
Sodium chondroitin sulfate
Sodium DNA, S. hyaluronate
Sodium lactate, S. PCA
Soluble collagen
Soluble transgenic elastin
Soybean (Glycine soja) oil
Spherical cellulose acetate
Spondias amara extract
Squalene
Stomach extract
Sunflower (Helianthus annuus) seed oil
Superoxide dismutase
Tissue extract
Tocopheryl acetate, T. linoleate
Tomato (Solanum lycopersicum) extract

Tormentil (Potentilla erecta) extract
Trehalose
Triundecanoin
Vegetable oil
Walnut (Juglans regia) oil
Watercress (Nasturtium officinale) extract
Wheat (Triticum vulgare) germ extract, germ oil
Yarrow (Achillea millefolium) extract
Wheat amino acids
Yeast (Saccharomyces cerevisiae) extract (Faex)
Yogurt filtrate
Zinc aspartate
Ziziphus jujuba extract

Naturilizer
2-Aminobutanol
Aminoethyl propanediol
Aminomethyl propanediol
Aminomethyl propanol
Ammonium carbonate
Calcium hydroxide
Diethanolamine
Ethanolamine
Glucamine
Isopropanolamine
Isopropylamine
2-Methyl-4-hydroxypyrrolidine
Morpholine
Sodium bromate
Succinic acid
Tetrahydroxypropyl ethylenediamine
Triethanolamine
Tromethamine

Oil absorbent
Hydrated silica
Polymethyl methacrylate
Silicon dioxide hydrate
Walnut (Juglans regia) shell powder

Ointment base
Borage (Borago officinalis) seed oil
Caprylic/capric/stearic triglyceride
Glyceryl cocoate
Hydrogenated coco-glycerides
Lanolin
Mink oil
Oleostearine
Tallow

Opacifier
Barium sulfate
C12-16 alcohols
Cetearyl octanoate
Cetyl myristate, C. palmitate
Cocamidopropyl lauryl ether
Glyceryl distearate
Glyceryl hydroxystearate
Glyceryl myristate, G. stearate
Glycol distearate, G. stearate
Magnesium myristate
PEG-2 distearate, P. stearate
PEG-2 stearate SE
PEG-3 distearate
Propylene glycol myristate, P. g. stearate
Stearamide
Stearamide DIBA-stearate
Stearamide MEA
Stearamide MEA-stearate
Stearamidopropyl dimethylamine lactate
Stearyl stearate
Styrene homopolymer
Styrene/acrylates copolymer
Styrene/PVP copolymer
Triisostearin PEG-6 esters

Plasticizer
Acetyl tributyl citrate
Acetyl triethyl citrate
AMP-isostearoyl hydrolyzed wheat protein
AMPD-isostearoyl hydrolyzed collagen
Cyclohexane dimethanol dibenzoate
Dibutyl phthalate
Diethyl phthalate
Diethylene glycol dibenzoate
Diisopropyl sebacate
Dimethicone copolyol
Dimethyl phthalate
Dipropylene glycol dibenzoate
Ethyl ester of hydrolyzed keratin
Glycerol tribenzoate
Glycol
Hydrolyzed serum protein
Isocetyl salicylate
Isodecyl benzoate
Isoeicosane
Isopropyl lanolate
Isostearoyl hydrolyzed collagen
Lauroyl hydrolyzed collagen
Marine collagen
Monostearyl citrate
Neopentyl glycol dibenzoate
Octyl benzoate, O. laurate
PEG-60 shea butter glycerides
Pentaerythrityl tetrabenzoate
Polyoxyethylene glycol dibenzoate
Polypropylene glycol dibenzoate
PPG-12-PEG-50 lanolin
PPG-20 cetyl ether
PPG-20 lanolin alcohol ether
Propylene glycol dibenzoate
Propylene glycol myristyl ether acetate
Rice (Oryza sativa) bran wax
Serum protein
Tosylamide/epoxy resin
Triacetin
Tributyl citrate
Triethyl citrate
Trimethyl pentanediol dibenzoate
Trimethylethanetribenzoate

Polish
Acrylates copolymer
Aluminum silicate
Neatsfoot oil
Tallow

Polymer
Acrylamide sodium acrylate copolymer
Acrylates-VA crosspolymer
Acrylates/acrylamide copolymer
Acrylates/hydroxyesters acrylates copolymer
Acrylates/octylacrylamide copolymer
Acrylates/steareth-20 methacrylate copolymer
Adipic acid-epoxypropyl diethylenetriamine copolymer
Adipic acid/dimethylaminohydroxypropyl diethylene triamine copolymer
Ammonium acrylates copolymer
Ammonium acrylates/acrylonitrogens copolymer
AMP-acrylates copolymer
AMP-isostearoyl hydrolyzed collagen
Butylester of PVM-MA copolymer
Calcium carrageenan
Carboxylated vinylacetate terpolymer
Ceteareth-2 phosphate
Ceteareth-5 phosphate
Ceteareth-10 phosphate
Ceteareth-29, -34
Coco-glucoside
Cocodimonium hydroxypropyloxyethyl cellulose
C12-13 pareth-4, -9, -23
DEA-ceteareth-2-phosphate
DEA-oleth-5-phosphate
DEA-oleth-20-phosphate
Diglycol/CHDM/isophthalates/SIP copolymer
Diisopropyl dimer dilinoleate
Diisostearoyl trimethylolpropane siloxy silicate
Diisostearyl dimer dilinoleate
Dilinoleic acid
Dodecanedioic acid/cetearyl alcohol/glycol copolymer
Eclipta alba extract
Ethyl ester of PVM/MA copolymer
Ethylene/acrylic acid copolymer
Ethylene/VA copolymer
Glycereth-26 phosphate
Hyaluronic acid
Hydrolyzed RNA
Hydrolyzed wheat protein polysiloxane polymer
Hydroxypropyltrimonium hydrolyzed collagen
Hydroxypropyltrimonium hydrolyzed wheat protein
Laneth-40
Lauryldimonium hydroxypropyl hydrolyzed soy protein
Methacryloyl ethyl betaine/acrylates copolymer
Octylacrylamide/acrylates/butylaminoethyl methacrylate copolymer
Oleth-2 phosphate
Oleth-5 phosphate
PEG-3 lanolate
PEG-4 stearate
PEG-5M
PEG-7 glyceryl cocoate
PEG-8 glyceryl laurate
PEG-8/SMDI copolymer
PEG-9 castor oil
PEG-9M
PEG-11 babassu glycerides
PEG-12 palm kernel glycerides
PEG-12 stearate
PEG-14 avocado glycerides
PEG-15 glyceryl laurate
PEG-20 corn glycerides
PEG-20 evening primrose glycerides
PEG-20 glyceryl oleate
PEG-23 oleate
PEG-23M
PEG-29 castor oil
PEG-42 babassu glycerides
PEG-45 safflower glycerides
PEG-45M
PEG-60 evening primrose glycerides
PEG-60 hydrogenated castor oil
PEG-75 castor oil
PEG-90M
PEG-120 distearate

Functions

PEG-150 lanolin
PEG-160M
PG-hydroxycellulose lauryldimonium chloride
PG-hydroxyethylcellulose cocodimonium chloride
PG-hydroxyethylcellulose stearyldimonium chloride
Polyethylene, ionomer
Polyethylene, micronized
Polyethylene, oxidized
Polyglyceryl-2 polyhydroxystearate
Polymethacrylamidopropyltrimonium chloride
Polyquaternium-6, -7, -10, -11, -22, -39
Polysilicone-8
Potassium alginate
Potassium lauroyl collagen amino acids
Potassium lauroyl hydrolyzed soy protein
Potassium lauroyl wheat amino acids
PPG-8/SMDI copolymer
PPG-12/SMDI copolymer
PPG-51/SMDI copolymer
PVM/MA decadiene crosspolymer
PVP/dimethylaminoethylmethacrylate copolymer
PVP/VA copolymer
Sodium cocoyl hydrolyzed wheat protein
Steardimonium hydroxypropyl hydrolyzed wheat protein
Steareth-2 phosphate
TEA-acrylates/acrylonitrogens copolymer
Tosylamide/epoxy resin
Tosylamide/formaldehyde resin
Trideceth-5, -6, -7, -8
VA/butyl maleate/isobornyl acrylate copolymer
VA/crotonates/vinyl neodecanoate copolymer
Vinyl caprolactam/PVP/dimethylaminoethylmethacrylate copolymer
Wheat (Triticum vulgare) protein
Xanthan gum

Powder
Acrylates copolymer, spherical powder
Attapulgite
Boron nitride
Calcium aluminum borosilicate
Calcium carbonate
Cellulose triacetate
Corn (Zea mays) cob powder, starch
Hydrogenated jojoba wax
Magnesium carbonate, M. myristate
Magnesium stearate
Mica
Microcrystalline cellulose
Nylon-6
Nylon powder
Oat (Avena sativa) starch
Polyamide 12
Polyethylene
Polymethyl methacrylate
Polymethylsilsesquioxane
PTFE
Silica
Silk powder
Spherical cellulose acetate
Talc
Tapioca dextrio
Zinc laurate

Powder, absorbent
Aluminum starch octenylsuccinate
Clays (white, yellow, red, green, pink)
Sorbitol
Tapioca

Preservative
Alcohol
Ascorbic acid
Ascorbyl palmitate
Benzalkonium chloride
Benzethonium chloride
Benzoic acid
Benzyl alcohol
Benzylparaben
5-Bromo-5-nitro-1,3-dioxane
2-Bromo-2-nitropropane-1,3-diol
Butylparaben
Calcium propionate
Cetrimonium bromide
Cetyl pyridinium chloride
Chloroxylenol
Chlorphenesin
o-Cymen-5-ol
Diazolidinyl urea
Dichlorobenzyl alcohol
Dichlorophene
Diiodomethyltolylsulfone
Dimethyl hydroxymethyl pyrazole
Dimethyl oxazolidine
Disodium EDTA
DMDM hydantoin
EDTA
Erythorbic acid
7-Ethylbicyclooxazolidine
Ethylparaben
Fomistopsis officinalis oil
Formaldehyde
Glutaral
Glyceryl laurate
HEDTA
Hexamidine diisethionate
Hexetidine
Imidazolidinyl urea
Isobutylparaben
Isopropyl sorbate
Isopropylparaben
MDM hydantoin
Methenammonium chloride
Methyl paraben sodium
Methylchloroisothiazolinone
Methyldibromo glutaronitrile
Methylisothiazolinone
Methylparaben
Mushroom (Cordyceps sabolifera) extract
Myrtrimonium bromide
Pentasodium pentetate
Pentetic acid
Phenethyl alcohol
Phenol
Phenyl mercuric acetate
o-Phenylphenol
Polyaminopropyl biguanide
Polymethoxy bicyclic oxazolidine
Potassium sorbate
Propylparaben
Quaternium-15
Salicylic acid
Sodium benzoate, S. bisulfate
Sodium butylparaben, S. dehydroacetate
Sodium erythorbate, S. ethyl paraben
Sodium hydroxymethylglycinate
Sodium metabisulfite, S. methylparaben
Sodium o-phenylphenate
Sodium propionate, S. propylparaben
Sodium pyrithione, S. salicylate
Sodium sulfite
Sorbic acid
Tetrasodium EDTA
Thimerosal
Thymol
Tris (hydroxymethyl) nitromethane
Trisodium EDTA, T. HEDTA
Usnic acid
Zinc PCA

Propellant
Butane
Dimethyl ether
Hydrofluorocarbon 152a

Isobutane
Propane

Protein
Albumen
Atelocollagen
Bletia hyacinthina extract
Chrysanthemum morifolium extract
Cocodimonium hydroxypropyl hydrolyzed collagen
Cocodimonium hydroxypropyl hydrolyzed keratin
Cocodimonium hydroxypropyl hydrolyzed soy protein
Cocodimonium hydroxypropyl hydrolyzed wheat protein
Cocoyl hydrolyzed collagen
Collagen, C. phthalate
Collagen amino-polysiloxane hydrolyzate
Deoxyribonucleic acid
Desamido collagen
Elastin amino acids
Embryo extract
Ethyl ester of hydrolyzed animal protein
Fibronectin
Gelatin
Human placental protein
Hydrolyzed collagen
Hydrolyzed extensin
Hydrolyzed fish protein
Hydrolyzed hemoglobin
Hydrolyzed keratin
Hydrolyzed lactalbumin
Hydrolyzed milk protein
Hydrolyzed soy flour
Hydrolyzed sweet almond protein
Hydroxypropyltrimonium hydrolyzed collagen
Isostearoyl hydrolyzed collagen
Keratin
Lactoferrin
Lactoglobolin
Lauryldimonium hydroxypropyl hydrolyzed collagen
Marine collagen
Methylsilanol elastinate
Potassium abietoyl hydrolyzed collagen
Potassium cocoyl hydrolyzed collagen
Potassium myristoyl hydrolyzed collagen
Potassium oleoyl hydrolyzed collagen
Potassium undecylenoyl hydrolyzed collagen
Propyltrimonium hydrolyzed collagen
Propyltrimonium hydrolyzed soy protein
Propyltrimonium hydrolyzed wheat protein
Protein hydrolysates
Quaternium-79 hydrolyzed keratin
Quaternium-79 hydrolyzed silk
Rice peptide
RNA
Serum albumin, S. protein
Silk powder
Sodium caseinate
Sodium cocoyl hydrolyzed collagen
Sodium cocoyl hydrolyzed soy protein
Sodium myristoyl hydrolyzed collagen
Sodium oleoyl hydrolyzed collagen
Sodium stearoyl hydrolyzed collagen
Sodium undecylenoyl hydrolyzed collagen
Sodium/TEA-lauroyl hydrolyzed collagen
Sodium/TEA-lauroyl hydrolyzed keratin
Soluble collagen
Soluble keratin
Soluble wheat protein
Soy (Glycine soja) protein
Steardimonium hydroxypropyl hydrolyzed collagen
Steartrimonium hydroxyethyl hydrolyzed collagen
TEA-cocoyl hydrolyzed collagen
TEA-cocoyl hydrolyzed soy protein
TEA-lauroyl collagen amino acids
TEA-lauroyl keratin amino acids
Trachea hydrolysate
Triethonium hydrolyzed collagen ethosulfate
Wheat (Triticum vulgare) germ extract, protein
Wheat amino acids
Wheat peptide
Wheat protein

Protein, hydrolyzed
Ethyl ester of hydrolyzed silk
Hydrolyzed casein
Hydrolyzed elastin
Hydrolyzed mushroom (Tricholoma matsutake) extract
Hydrolyzed pea protein
Hydrolyzed rice protein
Hydrolyzed serum protein
Hydrolyzed silk
Hydrolyzed soy protein
Hydrolyzed vegetable protein
Hydrolyzed wheat protein
Hydroxypropyltrimonium hydrolyzed casein
Hydroxypropyltrimonium hydrolyzed silk
Hydroxypropyltrimonium hydrolyzed soy protein
Hydroxypropyltrimonium hydrolyzed wheat protein

Reducing agent
Dimyristyl thiodipropionate
Hydrolyzed zein, iodized
Hydrolyzed zein, sulfurized
Zinc formaldehyde sulfoxylate

Refatting agent
Caprylic/capric triglyceride PEG-4 esters
Cocamide MIPA
Diisostearyl dimer dilinoleate
Hydrogenated palm kernel glycerides
Isostearyl erucate, I. isostearate
Lecithin
Liposomes
Magnesium sulfate hepta-hydrate
Octyldodecyl behenate, O. myristate
bis-Octyldodecyl stearoyl dimer dilinoleate
Octyldodecyl stearoyl stearate
Octyl hydroxystearate
PEG-3 stearate
PEG-4 oleamide
PEG-6 capric/caprylic glycerides
PEG-7 glyceryl cocoate
PEG-16
Propylene glycol dipelargonate

Resin
Acrylates/hydroxyesters acrylates copolymer
Ethylene vinyl acetate
Glyceryl abietate
Methacrylol ethyl betaine/acrylates copolymer
4-Methyl benzenesulfonamide
Polypropylene
Polyquaternium-16, -44
Sucrose benzoate

Sequestrant
Calcium acetate, C. phosphate, C. sulfate
Encapsulation and entrapment systems
Pentasodium triphosphate
Phosphoric acid
Potassium phosphate, P. sodium tartrate
Silicon dioxide hydrate
Sodium citrate, S. gluconate
Sorbitol
Tartaric acid
Tripotassium EDTA
Trisodium NTA

Silicone
Amino bispropyl dimethicone
Ammonium dimethicone copolyol sulfate
Amodimethicone
Behenoxy dimethicone
C16-18 alkyl methicone
Cetyl dimethicone copolyol
CyclomethiconeDiisostearoyl trimethylolpropane siloxy silicate
Diisodecyl adipate
Diisostearyl trimethylolpropane siloxy silicate
Dimethicone
Dimethicone copolyol
Dimethicone copolyol almondate
Dimethicone copolyol isostearate
Dimethicone copolyol olivate, D. c. phthalate
Dimethicone copolyolamine
Dimethiconol fluoroalcohol dilinoleic acid
Dimethiconol hydroxystearate, D. stearate
Diphenyl dimethicone
Disodium-PG-propyldimethicone thiosulfate
Isopropyl hydroxybutyramide dimethicone copolyol
Methicone

Functions

Octamethyl cyclotetrasiloxane
Phenyl methicone, P. trimethicone
Polyether Trisiloxane
Polymethylsilsesquioxane
Polysilicone-8
Quaternium-80
Silicone quaternium-1, -8
Sodium-PG-propyl thiosulfate dimethicone
Stearoxymethicone/dimethicone copolymer
Trimethylsilylamodimethicone

Skin calming agent
Cornflower (Centaurea cyanus) extract
Fennel (Foeniculum vulgare) extract
Fenugreek extract
Linden (Tilia cordata) extract
Valerian (Valeriana officinalis) extract

Skin cleanser
Dog rose (Rosa canina) hips extract
Papaya (Carica papaya) extract
Peach (Prunus persica) extract
Rose (Rosa multiflora) extract
Willow (Salix alba) extract

Skin conditioner
Artemisia apiacea extract
Astrocaryum tucuma extract
Bactris gasipaes extract
Biotin
Bishydroxyethyl biscetyl malonamide
Bletia hyacinthina extract
Borage (Borago officinalis) seed oil
Borageamidopropyl phosphatidyl PG-dimonium chloride
Carbocysteine
Catalpa kaempfera extract
Coco phosphatidyl PG-dimonium chloride
Cocodimonium hydroxypropyl hydrolyzed keratin
Collagen amino acids
Cyclomethicone
Dimethicone, D. copolyol acetate
Emblica officinalis extract
Equisetum arvense extract
Ethyl ester of hydrolyzed animal protein
Evening primrose (Oenothera biennis) oil
Fomes fomentarius extract
Fomistopsis officinalis oil
Gelatin
Ginseng hydroxypropyltrimonium chloride butylene glycol
Glycolipids
Glycosphingolipids
Gnetum amazonicum extract
Honey (Mel)
Hydrolyzed carbolipoprotein
Hydrolyzed elastin
Hydrolyzed pea protein
Hydrolyzed rice protein
Hydrolyzed serum protein
Hydrolyzed silk
Hydrolyzed soy protein
Hydrolyzed vegetable protein
Hydrolyzed wheat protein
Inga edulis extract
Kiwi (Actinidia chinensis) fruit extract
Laminaria japonica extract
Lecithin
Marsilea minuta extract
Nettle (Urtica dioica) extract
Palmitamidodecanediol
Pearls (Margarita margarita)
PEG-42 Ebiriko ceramides extract
Phenyl trimethicone
Phytantriol
Polygonum multiflorum extract
Polyquaternium-7, -22, -39
[illegible]

Potassium cocoyl hydrolyzed collagen
Retinyl palmitate polypeptide
Salvia miltiorrhiza extract
Silt
Sodium cocoyl hydrolyzed collagen
Soluble transgenic elastin
Steartrimonium hydroxyethyl hydrolyzed collagen
Stearyl methicone

Skin healing
Calendula officinalis extract
Glycoproteins
Hydrocotyl (Centella asiatica) extract
Oat (Avena sativa) extract
Sandalwood (Santalum album) extract
Spearmint (Mentha viridis) extract

Skin lightening/whitening agent
Ascorbic acid polypeptide
Bearberry (Arctostaphylos uva-ursi) extract
Hydroquinone-beta-D-glucopyranoside
Lemon (Citrus medica limonum) peel extract
Pearls (Margarita margarita)

Skin protectant
Acetylmethionyl methylsilanol elastinate
Allantoin, A. aluminum hydroxide
Aloe barbadensis, A. b. extract
Aluminum starch octenylsuccinate
Anise (Pimpinella anisum) extract
Arnica montana extract
Artemisia apiacea extract
Ascorbyl methylsilanol pectinate
Astrocaryum tucuma extract
Bactris gasipaes extract
Betaglucan
Bishydroxyethyl biscetyl malonamide
Bletia hyacinthina extract
C 18-70 Isoparaffin
Calendula amurrensis extract
Carboxymethyl chitin
Carcinia cambogia extract
Carrot (Daucus carota) extract
Carrot (Daucus carota sativa) oil
Catalpa kaempfera extract
Chenopodium album extract
Chitosan
Chrysanthemum morifolium extract
Collagen
Corn poppy (Papaver rhoeas) extract
Crataegus cuneata extract
Crataegus monogina extract
Cypress (Cupressus sempervirens) extract
Dimethicone
Dimethiconol fluoroalcohol dilinoleic acid
Dimethiconol hydroxystearate, D. stearate
Dimethylsilanol hyaluronate
Echitea glauca extract
Embryo extract
Entada phaseoloides extract
Equisetum arvense extract
Euphotorium fortunei extract
Euterpe precatoria extract
Fenugreek extract
Fomistopsis officinalis oil, F. pinicola extract
Galla sinensis extract
Gentian (Gentiana lutea) extract
Gleditsia sinensis extract
Glyceryl ricinoleate
Glycolipids
Hierochloe odorata extract
Hyaluronic acid
Hydrogenated lecithin
Hydrolyzed lupine protein
Hydrolyzed milk protein
Hydrolyzed mushroom (Tricholoma matsutake) extract
Indian cress (Tropaeolum majus) extract

Isodecyl salicylate
Jojoba (Buxus chinensis) oil
Lady's Thistle (Silybum marianum) extract
Laminaria japonica extract
Ligusticum jeholense extract
Liposomes
Magnolia spp. extract
Mango kernel oil
Marsilea minuta extract
Melaleuca hypercifolia extract
Melaleuca uncinata extract
Melaleuca wilsonii extract
Methylsilanol tri PEG-8 glyceryl cocoate
Oat (Avena sativa) meal
Oyster (Ostrea) shell extract
Palmitamidodecanediol
Pearls (Margarita margarita)
Pentahydrosqualene
Perfluorodecalin
Perfluoropolymethylisopropyl ether
Petrolatum
PEG-8/SMDI copolymer
PEG-42 Ebiriko ceramides extract
Pfaffia spp. extract
Phospholipids
Plankton extract
Polygonum multiflorum extract
Pongamol
PPG-12/SMDI Copolymer
PPG-51/SMDI Copolymer
Propyltrimonium hydrolyzed collagen
Quinoa (Chenopodium quinoa) extract, oil
Salvia miltiorrhiza extract
Sambucus nigra extract
Shark liver oil
Shorea robusota extract
Sodium chondroitin sulfate
Soluble transgenic elastin
Steartrimonium hydroxyethyl hydrolyzed collagen
Sterculia platanifolia extract
Superoxide dismutase
Trachea hydrolysate
Wheat (Triticum vulgare) germ extract, protein
White nettle (Lamium album) extract
Withania somniferum extract
Xanthozylum bungeanum extract
Zinc oxide

Skin smoothing agent
Althea officinalis extract
Coltsfoot (Tussilago farfara) leaf extract
Comfrey (Symphytum officinale) leaf extract
Plantain (Plantago major) extract
Sericin

Skin softening
Clays (white, yellow, red, green, pink)
Cucumber (Cucumis sativus) extract
Kelp (Macrocystis pyrifera) extract
Peach (Prunus persica) extract
Phenethyl dimethicone

Skin soothing
Calendula officinalis extract
Cherry bark extract
Cucumber (Cucumis sativus) extract
Garlic (Allium sativum) extract
Hyssop (Hyssopus officinalis) extract
Jasmine (Jasminum officinale) extract
Kelp (Macrocystis pyrifera) extract
Mango kernel oil
Meadowsweet (Spiraea ulmaria) extract
Quince (Pyrus cydonia) seed extract
Slippery elm extract
Valerian (Valeriana officinalis) extract
Willow (Salix alba) extract
Witch hazel (Hamamelis virginiana) extract
Yarrow (Achillea millefolium) extract

Functions

Solubilizer
Acetyl monoethanolamine
Almond oil PEG-6 esters
2-Aminobutanol
Aminoethyl propanediol
Aminomethyl propanediol. A. propanol
Apricot kernel oil PEG-6 esters
Benzalkonium chloride
Butoxydiglycol
Butyl glucoside
Butylene glycol
Butyloctanol
Capric-caprylic mono-diglyceride
Capryl caprylylglucoside
Caprylic/capric triglyceride
Caprylic/capric/linoleic triglyceride
Caprylic/capric/oleic triglycerides
Caprylyl/capryl glucoside
Ceteareth-20
Ceteth-10
Cetyl PPG-2 isodeceth-7 carboxylate
Cholesterol
Corn oil PEG-6 esters
Decaglycerol monodioleate
Diethanolamine
Dilaureth-10 phosphate
Dimethyl octynediol
Dioleth-8 phosphate
Glycereth-7 -26
Glyceryl caprylate. G. dilaurate
Glyceryl caprylate/caprate
Isoeicosane
Isopropanolamine
Isosteareth-20
Laneth-5, -15
Laureth-23
Methylated cyclodextrin
Myreth-3
Myreth-3-octanoate
Nonoxynol-10. -12. -14. -40. -50
Octoxynol-11. -40
Oleoamphohydroxypropylsulfonate
Oleth-3. -5. -10. -15. -20. -25. -50
Oleth-20 phosphate
PEG-4. -6. -8. -12. -16. -20. -32. -40.
PEG-4 dilaurate
PEG-6 capric/caprylic glycerides
PEG-6 methyl ether
PEG-8 distearate
PEG-12 laurate
PEG-15 castor oil
PEG-18 stearate
PEG-20 glyceryl isostearate. P. g. laurate
PEG-20 glyceryl oleate. P. g. stearate
PEG-20 methyl glucose sesquistearate
PEG-20 sorbitan isostearate
PEG-20 sorbitan triisosterate
PEG-24 hydrogenated lanolin
PEG-25 castor oil
PEG-25 hydrogenated castor oil
PEG-30 castor oil
PEG-30 glyceryl cocoate
PEG-30 glyceryl isostearate
PEG-30 glyceryl laurate
PEG-30 glyceryl oleate
PEG-30 glyceryl stearate
PEG-33 castor oil
PEG-35 castor oil
PEG-36 castor oil
PEG-40 castor oil
PEG-40 glyceryl laurate. P. g. stearate
PEG-40 hydrogenated castor oil
PEG-40 hydrogenated castor oil PCA isostearate
PEG-40 sorbitan diisostearate
PEG-45 palm kernel glycerides
PEG-48 hydrogenated castor oil
PEG-50 castor oil
PEG-50 hydrogenated castor oil
PEG-60 almond glycerides
PEG-60 castor oil
PEG-60 corn glycerides
PEG-60 glyceryl isostearate. P. g. stearate
PEG-60 hydrogenated castor oil
PEG-60 lanolin
PEG-70 mango glycerides
PEG-75 lanolin
PEG-75 shea butter glycerides
PEG-75 shorea butter glycerides
PEG-80 hydrogenated castor oil
PEG-80 jojoba acid/alcohol
PEG-80 sorbitan laurate
PEG-100 castor oil
PEG-100 hydrogenated castor oil
PEG-120 jojoba acid/alcohol
PEG-200 trihydroxystearin
Poloxamer 407
Polyglyceryl-3 oleate
Polyglyceryl-6 dioleate
Polyglyceryl-10 decaoleate. P. tetraoleate
Polysorbate 20. 60. 80
PPG-2-isodeceth-4. -6. -9. -12
PPG-3 isosteareth-9
PPG-3 isoceteth-20 acetate
PPG-5-ceteth-10 phosphate
PPG-5-ceteth-20
PPG-6-decyltetradeceth-12. -20. -30
PPG-12-PEG-65 lanolin oil
PPG-15 stearyl ether
PPG-18 butyl ether
PPG-24 butyl ether
PPG-26-buteth-26
PPG-33 butyl ether
PPG-33-buteth-45
PPG-40-PEG-60 lanolin oil
PPG-50 cetyl ether
Propylene glycol dicaprylate. dicaprylate/dicaprate
Ricinoleamide DEA
Ricinoleth-40
Sodium alpha olefin sulfonate
Sodium lauryl sulfate
Sodium methylnaphthalenesulfonate
Triethanolamine
Trioctanoin
Tromethamine

Solvent
Acetic acid
Acetone
Alcohol. A. denat.
Benzophenone
Butoxydiglycol
Butyl acetate
n-Butyl alcohol
Butyl myristate. B. stearate
Butylene glycol
C9-11 isoparaffin
C10-11 isoparaffin
C10-13 isoparaffin
Caprylic alcohol
Castor (Ricinus communis) oil
Cetearyl octanoate
Cetyl stearyl octanoate
Chlorobutanol
Decyl alcohol
Diethylene glycol
Diethylene glycol dibenzoate
Diethyl sebacate
Diisocetyl adipate
Diisopropyl adipate. D. sebacate
Dimethyl phthalate
Dipropylene glycol

Dipropylene glycol dibenzoate
Ethoxydiglycol
Ethyl acetate, E. laetate
Ethyl myristate, E. oleate
2-Ethylhexyl isostearate
Glycerin
Glycofurol
Heptane
Hexyl alcohol
Hexylene glycol
Isobutyl stearate
Isocetyl salicylate
Isodeeyl benzoate, I. isononanoate
Isodecyl octanoate, I. oleate
Isododecane
Isoeicosane
Isohexadecane
Isopropyl alcohol, I. myristate
Isostearyl stearoyl stearate
Laureth-2 acetate
Methoxydiglycol
Methoxyisopropanol
Methyl alcohol
Methyl propanediol
Methylene chloride
MEK
MIBK
Morpholine
Octyl benzoate, O. isononanoate
Octyl laurate, O. palmitate
Octyldodeeyl lactate
Olive oil PEG-6 esters
Peanut oil PEG-6 esters
Pentane
Petroleum distillates
PEG-6 methyl ether
PEG-12
PEG-20 hydrogenated castor oil
PEG-33 eastor oil
PEG-50 glyeeryl eocoate
Polyglyceryl-2 dioleate
Polyglyceryl-3 diisostearate
Polyoxyethylene glycol dibenzoate
Polypropylene glycol dibenzoate
PPG-2 myristyl ether propionate
PPG-3
PPG-20 lanolin alcohol ether
Propyl alcohol
Propylene carbonate
Propylene glyeol
Propylene glycol dibenzoate
Propylene glyeol methyl ether
Propylene glyeol myristate
Pyridine
Sesame (Sesamum indicum) oil
Stearyl heptanoate
Toluene
Xylene

SPF booster
Borojoa sorbilis extract
Isohexadecyl salicylate
Styrene/acrylates copolymer
Titanium dioxide
Yeast (Saeeheromyces cerevisiae) extract (Faex)

Stabilizer
Acrylates-VA crosspolymer
Acrylates/ceteth-20 methacrylates copolymer
Acrylates/steareth-20 methacrylate copolymer
Acrylates/vinyl isodeeanoate crosspolymer
Alkyldimethylamine oxide
C10 polycarbamyl polyglycol ester
Calcium alginate
Cocamidopropyl dimethylamine lactate
Cocamine oxide
Colloidal silica sols
Cyclodextrin
Disodium EDTA
Gellan gum
Glyceryl diisostearate, G. stearate SE
Glyceryl mono-di-tri-caprylate
Hydrogenated coco-glycerides
Hydrogenated C12-18 triglycerides
Hydrogenated tallow glycerides
Hydrolyzed oat flour
Hydroxyoctacosanyl hydroxystearate
Karaya (Stericulia urens) gum
Laureth-3
Maltitol
Methylated cyclodextrin
Oleamide
PEG-40 stearate
PEG-40/dodecyl glycol copolymer
Perfluoropolymethylisopropyl ether
Polyethylene paste
PPG-5 lanolin wax
PPG-7-buteth-10
PPG-10 cetyl ether phosphate
Propylene carbonate, P. glycol alginate
PVM/MA decadiene crosspolymer
Sodium acrylates/vinyl isodecanoate crosspolymer
Sodium carbomer
Sorbitan laurate
Stearic hydrazide
2,2',4,4'-Tetrahydroxybenzophenone
Tricaprin
Tricaprylin
Trilaurin
Trimyristin
Tripalmitin
Tristearin

Stimulant
Capsicum frutescens extract
Eleuthero ginseng (Acanthopanax senticosus) extract
Guarana (Paullinia cupana) extract
Lactococcus hydrolysate
Methylsilanol elastinate
Methylsilanol hydroxyproline aspartate
TEA-hydroiodide
Tocopheryl nicotinate
Urocanic acid
Yeast (Saccheromyces cerevisiae) extract (Faex)
Zedoary (Curcyma zedoaria) oil
Zinc DNA

Sunscreen
Basil (Basilicum sanctum) oil extract
Basil (Ocimum basilicum) extract
Benzophenone-3 -4
3-Benzylidene camphor
Borojoa sorbilis extract
C12-15 alkyl benzoate
Coffee (Coffea arabica) bean extract
Ethyl salicylate
Glyceryl PABA
Homosalate
Hydroquinone-beta-D-glucopyranoside
Isoamyl p-methoxycinnamate
Isopropylbenzyl salicylate
Job's tears (Coix lacryma-jobi) extract
Menthyl anthranilate
Octyl dimethyl PABA, O. methoxycinnamate
Octyl salicylate, O. triazone
Oryzanol
Pansy (Viola tricolor) extract
PEG-25 PABA
Phenylbenzimidazole sulfonic acid
Rice (Oryza sativa) bran oil
TEA-salicylate
Titanium dioxide

Sunscreen UVB
Benzophenone-5
Eclipta alba extract
PEG-25 PABA
Steareth-100
Tridecyl salicylate

Superfatting agent
Linoleamide DEA
PEG-20 almond glycerides
PEG-60 lanolin
PEG-75 lanolin

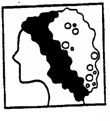
Surfactant
Alkyl dimethyl betaine
Alkyldimethylamine oxide
Ammonium cocoyl sarcosinate
Ammonium C12-15 alkyl sulfate
Ammonium dimethicone copolyol sulfate
Ammonium laureth-5 sulfate
Ammonium laureth-12 sulfate
Ammonium laureth sulfate
Ammonium lauroyl sareosinate
Ammonium lauryl sulfate, A l. sulfosuccinate
Ammonium myreth sulfate
Ammonium nonoxynol 4 sulfate
Azelamide MEA
C20-40 alcohol ethoxylate
C30-50 alcohol ethoxylate
C40-60 aleohol ethoxylate
Calcium dodeeylbenzene sulfonate
Calcium laurate
Ceteareth-2 phosphate
Ceteareth-5 phosphate
Ceteareth-10 phosphate
Cetoleth-25
Cetyl betaine, C. phosphate
Cocamide MEA ethoxylate
Cocamidopropyl betaine, potassium salt
Cocamidopropyl betaine ammonium salt
Cocamidopropyl hydroxy sultaine
Cocamidopropyl hydroxy sultaine, ammonium salt
Cocamidopropyl hydroxy sultaine, potassium salt
Cocamidopropylamine oxide
Coceth-7 earboxylic acid
Coco-glucoside
Cocoamphodiacetata lauryl-laureth sulfate
Cocoamphodiaeetate lauryl sulfate
Cocoamphodiacetate trideceth sulfate
Coco phosphatidyl PG-dimonium ehloride
N-Cocoyl-(3-amidopropyl)-N,N-dimethyl-N-ethyl ammonium ethyl sulfate
Cocoyl glutamic acid
Cocoyl hydrolyzed soy protein
Cocoyl hydroxyethyl imidazoline
C11-15 pareth-9, -12, -20, -30, -40
C12-13 pareth sulfate
C12-13 pareth-5 carboxylie acid
C12-15 pareth-12
C14-15 pareth-8 carboxylie acid
DEA-oleth-5-phosphate
DEA-oleth-20-phosphate
Deceth-3, -6, -8
Decyltetradeceth-25
Diceteareth-10 phosphoric acid
Dimethicone copolyol
Dimethicone copolyol almondate, D. c. isostearate
Dimethicone copolyol laurate, D. e. olivate
Dimethicone eopolyol phthalate
Dimethicone copolyolamine
Dimethieone propyl PG-betaine
Dioctyldodeceth-2 lauroyl glutamate
Dioctyldodeceth-5 lauroyl glutamate
Dioctyldodecyl lauroyl glutamate
Disodium capryloamphodiaceiate
Disodium cocoamphodiacetate
Disodium hydrogenated tallow glutamate
Disodium laneth-5 sulfosuccinate
Disodium lauramido MEA-sulfosuccinate
Disodium laureth sulfosuccinate
Disodium oleamido MIPA-sulfosuccinate
Disodium oleamido PEG-2 sulfosuccinate
Disodium oleth-3 sulfosuecinate
Disodium ricinoleamido MEA-sulfosuccinate
Disodium tallamido MEA-sulfosuccinate
Distereth-2 lauroyl glutamate

Functions

Distereth-5 lauroyl glutamate
Ethoxylated fatty alcohol
Ethoxylated glycerol sorbitan saturated fatty acid ester
Ethoxylated glycerol sorbitan unsaturated fatty acid ester
Glycereth-25 PCA isostearate
Glycereth-26 phosphate
Glyceryl hydroxystearate
Hydrogenated tallowoyl glutamic acid
Isopropyl hydroxybutyramide dimethicone copolyol
Lauramidopropyl betaine
Laureth-1, -2, -3, -4, -7, -12, -16
Laureth-3 carboxylic acid, L. phosphate
Laureth-5 carboxylic acid
Laureth-11 carboxylic acid
Lauroyl sarcosine
Lauryl dimethylamine cyclocarboxypropyloleate
Lauryl hydroxyethyl imidazoline
Linoleamide DEA
Magnesium laureth-8 sulfate
Meroxapol 105, 171, 172
MEA-lauryl sulfate
Mixed isopropanolamines myristate
Myreth-7
Myristoyl sarcosine
Myristyl alcohol
Nonoxynol-7, -9, -13, -15
Nonoxynol-10 carboxylic acid
Octoxynol-10, -12
Octyldodeceth-10, -16
Oleoyl sarcosine
Oleth-2 phosphate
Oleth-5 phosphate
Oleyl betaine
Oleyl hydroxyethyl imidazoline
Palmitamine oxide
Palmityl betaine
PCA ethyl cocoyl arginate
PEG-7 hydrogenated castor oil
PEG-8 caprylic/capric glycerides
PEG-8 laurate
PEG-8 stearate
PEG-15 glyceryl stearate
PEG-25 glyceryl isostearate
PEG-27 lanolin
PEG-30 lanolin
PEG-40 castor oil
PEG-40 glyceryl stearate
PEG-40 jojoba oil, P. lanolin
PEG-60 glyceryl isostearate, P. g. stearate
PEG-80 jojoba oil, P. sorbitan laurate
PEG-120 jojoba oil
Pentasodium triphosphate
Poloxamer 101, 122
Polyglyceryl-2 dioleate
Polysiloxane-polyether copolyer
Potassium cocoyl glycinate
Potassium cocoyl hydrolyzed collagen
Potassium C9-15 phosphate ester
Potassium lauroyl hydrolyzed collagen
Potassium lauryl sulfate
Potassium myristoyl hydrolyzed collagen
Potassium oleoyl hydrolyzed collagen
Potassium palmitate
Potassium undecylenoyl hydrolyzed collagen
PPG-2-isodeceth-4 -6 -9 -12
PPG-6 C12-18 pareth-11
Protein hydroylsates
Quaternium-80
Quillaja saponaria extract
Raffinose laurate, R. myristate, R. oleate
Raffinose palmitate, R. stearate
Ricinoleamidopropyl betaine
Silicone quaternium-1, -8, -9
Sodium alpha olefin sulfonate
Sodium cocoamphoacetate
Sodium cocoyl hydrolyzed wheat protein
Sodium cocoyl isethionate
Sodium C12-13 sulfate
Sodium C12-14 pareth-2 sulfate
Sodium C12-15 pareth-3 sulfonate
Sodium C12-15 pareth-7 carboxylate
Sodium C12-15 pareth-7 sulfonate
Sodium C12-15 pareth-8 carboxylate
Sodium C12-15 pareth-15 sulfonate
Sodium C12-18 alkyl sulfate
Sodium C13-17 alkane sulfonate
Sodium C14-16 olefin sulfonate
Sodium cetearyl sulfate
Sodium cetyl oleyl sulfate
Sodium coco-tallow sulfate
Sodium cocoyl glutamate
Sodium cocoyl hydrolyzed collagen
Sodium cocoyl hydrolyzed soy protein
Sodium cocoyl sarcosinate
Sodium dimethicone copolyol acetyl methyltaurate
Sodium hydrogenated tallow glutamate
Sodium isodecyl sulfate
Sodium laureth-5 carboxylate
Sodium laureth-11 carboxylate
Sodium laureth-13-carboxylate
Sodium laureth sulfate
Sodium lauroamphoacetate
Sodium lauroyl glutamate
Sodium lauroyl hydrolyzed collagen
Sodium lauroyl sarcosinate, S. l. taurate
Sodium magnesium laureth sulfate
Sodium methyl cocoyl taurate
Sodium methyl oleoyl taurate
Sodium myristoyl glutamate
Sodium myristoyl hydrolyzed collagen
Sodium myristoyl sarcosinate
Sodium myristyl sulfate
Sodium nonoxynol-6 phosphate
Sodium octoxynol-2 ethane sulfonate
Sodium octyl sulfate
Sodium oleoyl hydrolyzed collagen
Sodium stearoyl hydrolyzed collagen
Sodium trideceth sulfate
Sodium undecylenoyl hydrolyzed collagen
Sodium/TEA-lauroyl hydrolyzed collagen
Sodium/TEA-lauroyl hydrolyzed keratin
Sorbitan isostearate
Stearoyl sarcosine
Sulfated castor oil
TEA-cocoyl glutamate
TEA-cocoyl hydrolyzed collagen
TEA-cocoyl hydrolyzed soy protein
TEA-C12-15 alkyl sulfate
TEA-hydrogenated tallow glutamate
TEA-lauroyl glutamata
TEA-lauroyl keratin amino acids
TEA-lauroyl sarcosinate
TEA-lauryl sulfate
TEA-myristoyl hydrolyzed collagen
Tocophereth-5 -10 -18 -20 -30 -50 -70
Trideceth-7 carboxylic acid
Trideceth-9
Trideceth-19-carboxylic acid
Tridecyl ethoxylate
Triethanolamine C10-14 sulfate
Trilauryl phosphate
Wheat germamidopropyl betaine
Yucca vera extract

Suspending agent

Acrylates/ceteth-20 methacrylates copolymer
Acrylates/steareth-20 methacrylate copolymer
Algin
Bentonite
C10 polycarbamyl polyglycol ester
Calcium alginate
Carbomer, C. 934
Carrageenan (Chondrus crispus)
Cellulose gum
Cetyl hydroxyethylcellulose



Functions

Dihydrogenated tallow phthalic acid amide
Distearyl phthalic acid amide
Guar (Cyanopsis tetragonoloba) gum
Hectorite
Hydroxypropylcellulose
Isobutylene/MA copolymer
Magnesium aluminum silicate
Methylcellulose
Pentasodium triphosphate
Polyethylene, P. micronized
Propylene glycol alginate
Quaternium-18 bentonite
Quaternium-18 hectorite
Sodium magnesium silicate
Sodium polynaphthalenesulfonate
Stearalkonium bentonite, S. hectorite
Steareth-10 allyl ether/acrylates copolymer
Tragacanth (Astragalus gummifer) gum
Tribehenin
Trihydroxystearin
Tromethamine magnesium aluminum silicate
Xanthan gum

Sweetener
Calcium saccharin
Fructose
Glycyrrhetinic acid
Glycyrrhizic acid
Glycyrrhizin, ammoniated
Hydrolyzed corn starch
Lactose
Maltitol
Mannitol
Saccharin
Sodium saccharin
Sorbitol
Sucrose

Tanning accelerator
Acetyl tyrosine
Carrot (Daucus carota) extract
Copper acetyl tyrosinate methylsilanol
Dihydroxyacetone
Disodium inulyl tyrosinate
Eclipta alba extract in white emulsion
Glucose tyrosinate

Thickener
Acrylates-VA crosspolymer
Acrylates/C10-C30 alkyl acrylate crosspolymer
Acrylates/ceteth-20 itaconate copolymer
Acrylates/ceteth-20 methacrylates copolymer
Acrylates/steareth-20 itaconate copolymer
Acrylates/steareth-20 methacrylate copolymer
Acrylates/steareth-50 acrylate copolymer
Acrylates/vinyl isodecanoate crosspolymer
Acrylic acid/acrylonitrogens copolymer
Algin
Aluminum/magnesium hydroxide stearate
Ammonium acrylates/acrylonitrogens copolymer
Ammonium alginate
Arachidyl alcohol
Behenic acid
Behenyl alcohol, B. behenate
Bentonite
C10 polycarbamyl polyglycol ester
C12-15 alcohols
C12-16 alcohols
C18-36 acid
Calcium alginate
Calcium carrageenan
Caprylic alcohol
Carbomer
Carboxymethyl hydroxyethylcellulose
Carrageenan (Chondrus crispus)
Cellulose, C. gum
Cetearyl alcohol, C. behenate
Cetearyl octanoate, C. stearate
Cetostearyl stearate
Cetyl alcohol
Cetyl hydroxyethylcellulose
Cetyl myristate, C. palmitate
Cocamide
Cocamide MEA, C. MIPA
Cocamidopropylamine oxide
Coco-betaine
Coco-rapeseedate
Coco/oleamidopropyl betaine
Cocoyl amido hydroxy sulfo betaine
Cocoyl monoethanolamide ethoxylate
Colloidal silica sols
DEA-hydrolyzed lecithin
DEA-linoleate
DEA-oleth-3 phosphate
DEA oleth-10 phosphate
Decyl alcohol
Dextran
Dextrin
Dilaureth-10 phosphate
Dioleth-8 phosphate
DMHF
Ethoxylated fatty alcohol
Gellan gum
Glyceryl behenate, G. stearate
Glyceryl polymethacrylate
Guar (Cyanopsis tetragonoloba) gum
Guar hydroxypropyltrimonium chloride
Hectorite
Hexyl alcohol
Hydrated silica
Hydrogenated rapeseed oil
Hydrogenated starch hydrolysate
Hydrogenated talloweth-60 myristyl glycol
Hydrolyzed oat flour
Hydrolyzed transgenic collagen
Hydroxyethylcellulose
Hydroxypropyl chitosan
Hydroxypropyl guar
Hydroxypropyl methylcellulose
Hydroxypropylcellulose
Isoceteth-10
Isostearamide DEA
Isostearamidopropylamine oxide
Isostearoamphopropionate
Jojoba wax
Karaya (Stericulia urens) gum
Lauramide DEA, L. MEA, L. MIPA
Lauramidopropyl betaine
Laureth-10
Lauric-linoleic DEA
Lauryl-linoleoyl diethanolamide
Lauryl-myristoyl diethanolamide
Lauryl alcohol, L. betaine
Linoleamide DEA, L. MEA
Linoleic acid
Linolenic acid
Locust bean (Ceratonia siliqua) gum
Magnesium aluminum silicate
MDM hydantoin
Methylcellulose
Montmorillonite
Myristamide DEA, M. MEA
Myristamine oxide
Myristyl alcohol
Octacosanyl stearate
Oleamide, O. DEA, O. MEA
Palmitamide MEA
Pectin
PEG-2 laurate
PEG-3 distearate, P. lauramide
PEG-3 lauramine oxide
PEG-4 diisostearate, P. oleamide
PEG-5M
PEG-6 beeswax
PEG-7 hydrogenated castor oil
PEG-8
PEG-8 dioleate, P. distearate
PEG-8 stearate
PEG-9M
PEG-12 beeswax
PEG-18 glyceryl oleate/cocoate
PEG-23M
PEG-28 glyceryl tallowate
PEG-40 jojoba oil
PEG-45M
PEG-50 tallow amide
PEG-55 propylene glycol oleate
PEG-75 stearate
PEG-90M
PEG-100 stearate
PEG-120 methyl glucose dioleate
PEG-150 distearate
PEG-150 pentaerythrityl tetrastearate
PEG-160M
PEG-200 glyceryl stearate
PEG-200 glyceryl tallowate
Pentaerythrityl tetrabehenate
Pentaerythrityl tetrastearate
Poloxamer 105, 124, 185, 237, 238, 338, 407
Polyacrylic acid
Polysorbate 20
Potassium alginate, P. chloride
Potassium oleate, P. stearate
PPG-5-ceteth-10 phosphate
Propylene glycol stearate
PVM/MA decadiene crosspolymer
PVP
Quaternium-18 bentonite
Quaternium-18 hectorite
Rapeseed oil, ethoxylated high erucic acid
Ricinoleamide MEA
Sesamide DEA
Sodium acrylates/vinyl isodecanoate crosspolymer
Sodium carbomer, S. carrageenan
Sodium ceteth-13-carboxylate
Sodium chloride
Sodium magnesium silicate, S. stearate
Sorbitan sesquiisostearate, S. tristearate
Soyamide DEA
Soyamidopropyl betaine
Starch polyacrylonitrile copolymer-potassium salt
Starch polyacrylonitrile copolymer-sodium salt
Stearalkonium bentonite, S. hectorite
Stearamide
Stearamide DEA, S. MEA, S. MEA-stearate
Stearamidopropyl dimethylamine lactate
Stearamine oxide

Functions

Steareth-10 allyl ether/acrylates copolymer
Stearic acid
Stearyl alcohol
Synthetic beeswax
Tallowamide MEA
TEA-acrylates/acrylonitrogens copolymer
Tragacanth (Astragalus gummifer) gum
Tribehenin
Trihydroxystearin
Tromethamine magnesium aluminum silicate
Wheat germamide DEA
Wheat germamidopropyl betaine
Xanthan gum

Thixotrope
Bentonite
Hectorite
Sodium magnesium silicate
Stearalkonium bentonite

Toner
Althea officinalis extract
Clover (Trifolium pratense) extract
Dog rose (Rosa canina) hips extract
Ginseng (Panax ginseng) extract
Horsetail extract
Lemon bioflauonoids extract
Meadowsweet (Spiraea ulmaria) extract
Nettle (Urtica dioica) extract
Rose (Rosa multiflora) extract
Rosemary (Rosmarinus officinalis) extract

UVA absorber
Benzophenone-1, -2, -3, -4, -6, -8, -9, -11, -12
Butyl methoxydibenzoylmethane
Corallina officinalis
Isopropyl dibenzoylmethane
Menthyl anthranilate
2,2',4,4'-Tetrahydroxybenzophenone
Titanium dioxide
Zinc oxide

UVB absorber
Argania spinosa oil
Benzophenone-1 -2 -3 -4 -6 -9 -11
Corallina officinalis
DEA-methoxycinnamate
Drometrizole
Ethyl dihydroxypropyl PABA
Etocrylene
Homosalate
Isoamyl p-methoxycinnamate
Isopropyl methoxycinnamate
Isopropylbenzyl salicylate
4-Methylbenzylidene camphor
Octocrylene
Octrizole
Octyl dimethyl PABA
Octyl methoxycinnamate
Octyl salicylate, O. triazone
PABA
PEG-25 PABA
Phenylbenzimidazole sulfonic acid
Shea butter, ethoxylated
TEA-salicylate
Titanium dioxide
TriPABA panthenol
Zinc oxide

Vegetable oil
Apricot (Prunus armeniaca) kernel oil
Avocado (Persea gratissima) oil
Baobab oil
Calendula officinalis oil
Chaulmoogra (Taraktogenos kurzii) oil
Coconut (Cocos nucifera) oil
Corn (Zea mays) oil
Cottonseed (Gossypium) oil
Gold of pleasure oil
Grape (Vitis vinifera) seed oil
Hazel (Corylus avellana) nut oil
Hybrid sunflower (Helianthus annuus) oil
Hydrogenated coconut oil
Hydrogenated cottonseed oil
Hydrogenated vegetable oil
Jojoba (Buxus chinensis) oil
Kukui (Aleurites molaccana) nut oil
Macadamia ternifolia nut oil
Meadowfoam (Limnanthes alba) seed oil
Mexican poppy oil
Palm (Elaeis guineensis) kernel oil
Partially hydrogenated soybean oil
Peach (Prunus persica) kernel oil
Peanut (Arachis hypogaea) oil
Pecan (Carya illinoensis) oil
Pumpkin (Cucurbita pepo) seed oil
Quinoa (Chenopodium quinoa) oil
Rapeseed (Brassica campestris) oil
Rice (Oryza sativa) bran oil
Safflower (Carthamus tinctorius) oil
Seabuckthorn oil
Sesame (Sesamum indicum) oil
Sisymbrium irio oil
Soybean (Glycine soja) oil
Sunflower (Helianthus annuus) seed oil
Walnut (Juglans regia) oil
Wheat (Triticum vulgare) germ oil
Wild borage oil

Vitamin
Aesculus chinensis extract
Ascorbic acid
Ascorbic acid polypeptide
Ascorbyl palmitate
Biotin
Calcium pantothenate
Cholecalciferol
Cyanocobalamin
Eclipta alba extract
Emblica officinalis extract
Equisetum arvense extract
Ergocalciferol
Esculin
Ethyl linoleate
Folic acid
Laminaria japonica extract
Marsilea minuta extract
Melaleuca bracteata extract
Menadione
Nasturtium sinensis extract
Nelumbium speciosum extract
Niacin
Niacinamide, N. ascorbate
Nicotinamide
Nicotinic acid
Ocimum basilicum extract
Panthenyl triacetate
Pantothenic acid
Phytonadione
Pyridoxine HCl
Retinol
Retinyl acetate, R. palmitate
Retinyl palmitate polypeptide
Retinyl propionate
Riboflavin tetraacetate
Sodium ascorbate
Thiamine HCL
Tocopherol
Tocopheryl acetate, T. succinate

Wax
Bayberry (Myrica cerifera) wax
Behenoxy dmethicone
C16-18 alkyl methicone
Candelilla (Euphorbia cerifera) wax
Carnauba (Copernicia cerifera) wax
Ceresin
Cetyl dimethicone, C. isooctanoate
Dialkyldimethylpolysiloxane
Dimethiconol hydroxystearate
Dimethiconol stearate
Hydrogenated castor oil
Hydrogenated cottonseed oil
Hydrogenated jojoba oil, H. j. wax
Hydrogenated palm kernel oil
Hydrogenated rapeseed oil
Hydrogenated rice bran wax
Hydrogenated vegetable oil
Isooctadecyl isononanoate
Japan (Rhus succedanea) wax
Jojoba esters
Montan (Montan cera) wax
Ouricury wax
Ozokerite
Polyglyceryl-3 beeswax
Spermaceti
Stearoxymethicone/dimethicone copolymer
Stearoxytrimethylsilane
Synthetic candelilla wax
Synthetic carnauba

Wetting agent
Benzalkonium chloride
Benzethonium chloride
Cetalkonium chloride
Ceteareth-20
Ceteth-20
Cetyl pyridinium chloride
Cocoamphodipropionic acid
Decaglycerol monodioleate
Deceth-9
Dihydroabietyl methacrylate
Dimethicone copolyol methyl ether
Dimethicone copolyol phthalate
Dioctyl sodium sulfosuccinate
Ethyl hydroxymethyl oleyl oxazoline
Hydroxylated milk glycerides
Isolaureth-6
Lanolin acid
Lauryl pyrrolidone
Lecithin
Methyl hydrogenated rosinate
Methyl rosinate
Nonyl nonoxynol-5
Octoxynol-8, 70
Oleth-15
Oleth-20 phosphate
PEG-9 castor oil
PEG-15 castor oil
PEG-20 glyceryl stearate
PEG-20 sorbitan triisosterate
PEG-45 palm kernel glycerides
PEG-60 almond glycerides, P. corn glycerides
PEG-60 shea butter glycerides
PEG-70 mango glycerides
PEG-75 shorea butter glycerides
PEG-80 sorbitan laurate
Poloxamer 123, 181, 182, 184, 235, 334
Polyether trisiloxane
Polyglyceryl-3 oleate
Polyglyceryl-6 dioleate
Polyglyceryl-10 tetraoleate
Polysorbate 60, 80
PPG-2-isodeceth-4, -6, -9, -12
PPG-10 lanolin alcohol ether
Propylene glycol
Sodium butoxyethoxy acetate
Sodium caproamphohydroxypropylsulfonate
Sodium decyl diphenyl ether sulfonate
Sodium dodecyldiphenyl ether sulfonate
Sodium lauryl sulfate
Sulfated castor oil
Triisocetyl citrate
Triisostearin PEG-6 esters
Yucca vera extract

Claims:

1. A cosmetic composition, comprising:

a cosmetically acceptable carrier, comprising a reverse thermal viscosifying polymer network comprising at least one poloxamer component randomly bonded to at least one poly(acrylic acid) component said polymer network capable of aggregation in response to a change in temperature; and

a cosmetically active agent which imparts a preselected cosmetic effect, said carrier and said agent disposed within an aqueous-based medium.

2. A cosmetic composition for topical application, comprising:

a cosmetically acceptable carrier, comprising a reverse thermal viscosifying polymer network comprising at least one poloxamer component capable of aggregation in response to a change in temperature randomly bonded to at least one poly(acrylic acid) component; and

a cosmetically active agent selected to treat imperfections or disorders of the skin, said carrier and said agent disposed within an aqueous-based medium.

3. The cosmetic composition of claim 1, wherein the cosmetic composition is a shampoo and the cosmetically active agent comprises a cleansing surfactant.

4. The cosmetic composition of claim 1, wherein the cosmetic composition is a moisturizer and the cosmetically active agent comprises a moisturizer.

5. The cosmetic composition of claim 1, wherein the cosmetic composition is a sunscreen and the cosmetically active agent comprises a uv-absorbing agent.

6. The cosmetic composition of claim 1, wherein the cosmetic composition is an acne cream and the cosmetically active agent comprises an antiacne agent.

7. The cosmetic composition of claim 1, wherein the cosmetic composition is a hair straightener and the cosmetic agent comprises a base for increasing the pH.

8. The cosmetic composition of claim 1, wherein the cosmetic composition is a sunless tanning lotion and the cosmetically active agent comprises skin tinting agent.

9. The cosmetic composition of claim 1, wherein the cosmetic composition is an antiperspirant and the cosmetically active agent comprises aluminum chlorhydrate.

10. The cosmetic composition of claim 1, wherein the cosmetic composition is a shaving cream and the cosmetically active agent comprises an emollient and a foaming surfactant.

11. The cosmetic composition of claim 1, wherein the cosmetic composition is a face cosmetic and the cosmetically active agent comprises a pigment.

12. The cosmetic composition of claim 1 or 2, wherein the cosmetic agent comprises a hydrophobic material, wherein the cosmetically acceptable carrier stabilizes the hydrophobic material in the aqueous medium.

13. The cosmetic composition of claim 2, wherein said cosmetic agent selected to treat imperfections or disorders of the skin is selected from the group consisting of acidulents, antiacne agents, anti-aging agents, anti-inflammatories, anti-irritants, antioxidants, depilatories, detergents, disinfectants, emollients, exfoliants, humectants, lubricants, moisturizers, skin conditioners, skin protectants, skin lightening agents, skin soothing agents sunscreening agents and tanning accelerators and mixtures thereof.

14. The composition of claim 4, wherein said composition further comprises a cosmetic agent selected from the group consisting of humectants and emollients.

15. The composition of claim 1 or 2, further comprising one or more additives selected from the group consisting of preservatives. abrasives, acidulents, antiacne agents. anti-aging agents. antibacterials. anticaking, anticaries agents. anticellulites. antidandruff, antifungal, anti-inflammatories, anti-irritants, antimicrobials. antioxidants. astringents. anitperspritants. antiseptics, antistatic agents, antringents, binders. buffers. additional carriers. chelators. cell stimulants. cleansing agents. conditioners. deodorants, dipilatories, detergents. dispersants, emollients, emulsifiers. enzymes. essential oils, exfoliants, fibers. film forming agents. fixatives, foaming agents, foam stabilizers, foam boosters. fungicides, gellants, glosser. hair conditioner, hair set resins. hair sheen agents, hair waving agents, humectants, lubricants, moisture barrier agents, moisturizers. ointment bases, opacifier, plasticizer. polish, polymers, powders, propellant, protein, refatting agents, sequestrant, silicones, skin calming agents, skin cleansers, skin conditioners. skin healing, skin lightening agents, skin protectants, skin smoothing agents, skin softening agents, skin soothing agents, stabilizers, sunscreen agents, surfactants, suspending agents, tanning accelerators, thickeners, vitamins, waxes. wetting agents. liquefiers, colors, flavors and/or fragrances

16. The composition of claim 1, wherein the cosmetic composition takes a form selected from the group consisting of lotions, creams, sticks, roll-on formulations, mousses, sprays, aerosols, pad-applied formulations and masks.

17. The composition of claim 1, wherein the viscosification occurs at a temperature in the range of about 27 to 40°C.

18. The composition of claim 1, wherein the viscosification occurs at a temperature in the range of about 30 to 37°C.

19. The composition of claim 1, wherein said composition is formulated as a product selected from the group consisting of baby products, baby shampoos, lotions, powders and creams; bath preparations, bath oils, tablets and salts, bubble baths, bath fragrances bath capsules; eye makeup preparations, eyebrow pencil, eyeliner, eye shadow, eye lotion, eye makeup remover, mascara; fragrance preparations, colognes, toilet waters, powders and sachets; noncoloring hair preparations, hair conditioner, hair spray, hair straighteners, permanent waves, rinses, shampoos, tonics, dressings and other grooming aids; color cosmetics; hair coloring preparations, hair dye, hair tints, hair color sprays, hair lighteners and hair bleaches; makeup preparations, face powders, foundations, leg and body paints, lipstick makeup bases, rouges and makeup fixatives; manicuring preparations, basecoats, undercoats, cuticle softeners, nail creams, nail extenders, nail polish and enamel, and remover; oral hygiene products, dentrifices, mouthwashes; personal cleanliness, bath soaps, detergents, deodorants, douches and feminine hygiene product; shaving preparations, aftershave lotion, beard softeners, men's talcum, shaving cream, shaving soap, preshave lotions; skin care preparations, skin cleansing preparations, skin antiseptics, depilatories, face and neck cleansers, body and hand cleansers, foot powders; moisturizers, night preparations, paste masks, skin fresheners; and suntan preparations, suntan creams, gels and lotions, and indoor tanning preparations.

20. The cosmetic composition of claim 1 or 2, wherein the poloxamer component is present in an amount in the range of about 0.01 to 20 wt% and the poly(acrylic acid component) is present in the amount of about 0.01 to 20 wt%.

21. The cosmetic composition of claim 1, wherein the polymer network comprises a plurality of poloxamers.

22. The cosmetic composition of claim 1, wherein the polymer network comprises a plurality of poloxamer components randomly bonded to a poly(acrylic acid) backbone.

23. The cosmetic composition of claim 1, wherein the reversibly viscosifying polymer composition comprises a plurality of poly(acrylic acid) components randomly bonded to a poloxamer component.

24. The cosmetic composition of claim 1, wherein the aqueous-based medium is selected from the group consisting of water, salt solutions and water with water-miscible organic compound(s).

25. The cosmetic composition of claim 1, further comprising an additive selected to increase transition temperature and increase viscosity of the reversible viscosifying polymer network.

26. The cosmetic composition of claim 1, further comprising an additive selected to increase transition temperature and decrease viscosity of the reversible viscosifying polymer network.

27. The cosmetic composition of claim 1, further comprising an additive selected to increase transition temperature without affecting viscosity of the reversible viscosifying polymer network..

28. The cosmetic composition of claim 1, further comprising an additive selected to decrease transition temperature and increase viscosity of the reversible viscosifying polymer network.

29. The cosmetic composition of claim 1, further comprising an additive selected to decrease transition temperature and decrease viscosity of the reversible viscosifying polymer network.

30. The cosmetic composition of claim 1, further comprising an additive selected to decrease transition temperature without affecting viscosity of the reversible viscosifying polymer network.

31. The cosmetic composition of claim 1, further comprising an additive selected to increase viscosity without affecting transition temperature of the reversible viscosifying polymer network.

32. The cosmetic composition of claim 1, further comprising an additive selected to decrease viscosity without affecting transition temperature of the reversible viscosifying polymer network.

33. The cosmetic composition of claim 1 or 2, characterized in that the gel remains translucent to light before and after response to the environmental stimulus.

34. The cosmetic composition of claim 1, wherein the poly(acrylic acid) is branched.

35. Method of making an cosmetic composition, comprising:

dissolving a poloxamer capable of aggregation in response to a change in temperature in acrylic acid monomer;

initiating polymerization of the monomer to form a poly(acrylic acid) randomly bonded to the poloxamer, so as to form a reversibly viscosifying polymer composition;

mixing the reversibly gelling polymer compositions with a cosmetic agent which imparts a desired cosmetic effect to the composition.

36. The method of claim 36, wherein a polymerization initiator is selected to provide the polymer network having a selected temperature of viscosification.

37. The method of claim 36, wherein one or more poloxamers are added.

38. The cosmetic composition of claim 1, wherein the reversibly viscosifying polymer network is present in an amount in the range of 0.01% 10%.

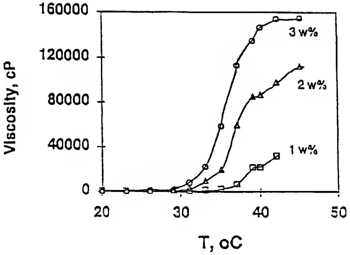
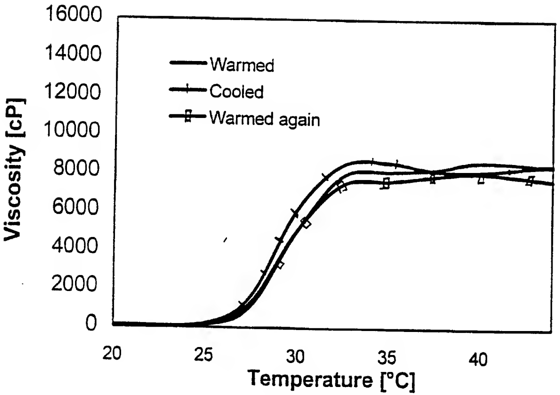

160000
120000
80000
40000
0
Viscosity, cP
20
30
40
50
T, oC
3 w%
2 w%
1 w%

Figure 1.



16000
14000
12000
10000
8000
6000
4000
2000
0
Viscosity [cP]
Warmed
Cooled
Warmed again
20
25
30
35
40
Temperature [°C]

Figure 2

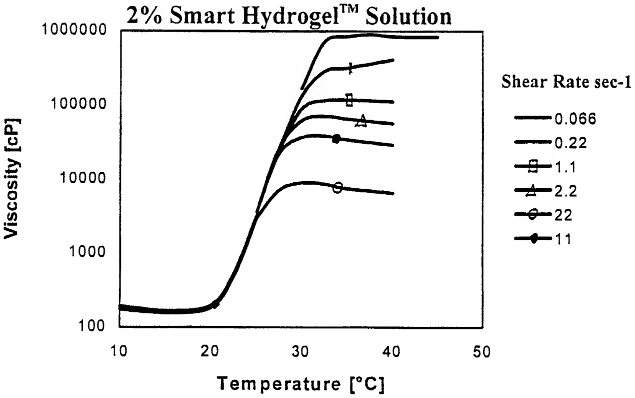

2% Smart Hydrogel™ Solution
1000000
100000
10000
1000
100
Viscosity [cP]
10
20
30
40
50
Temperature [°C]
Shear Rate sec-1
0.066
0.22
1.1
2.2
22
11

Figure 3

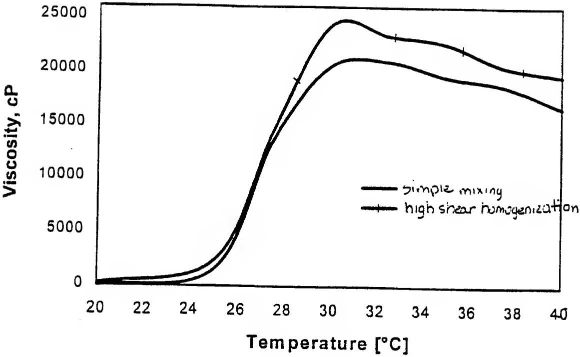

25000
20000
15000
10000
5000
0
Viscosity, cP
20
22
24
26
28
30
32
34
36
38
40
Temperature [°C]
simple mixing
high shear homogenization

Figure 4

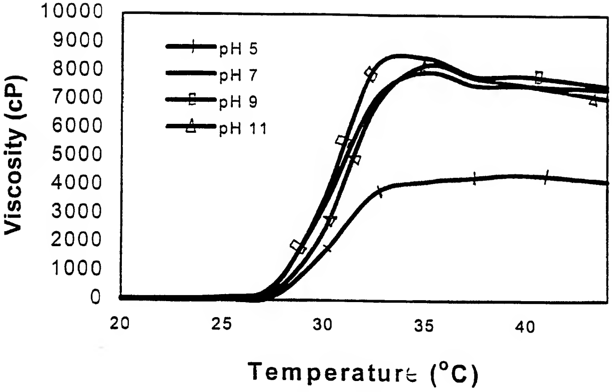

10000
9000
8000
7000
6000
5000
4000
3000
2000
1000
0
Viscosity (cP)
pH 5
pH 7
pH 9
pH 11
20
25
30
35
40
Temperature (°C)

Figure 5

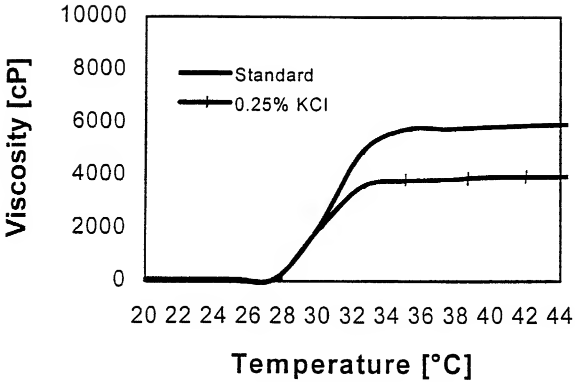

10000
8000
6000
4000
2000
0
Viscosity [cP]
Standard
0.25% KCl
20 22 24 26 28 30 32 34 36 38 40 42 44
Temperature [°C]

Figure 6

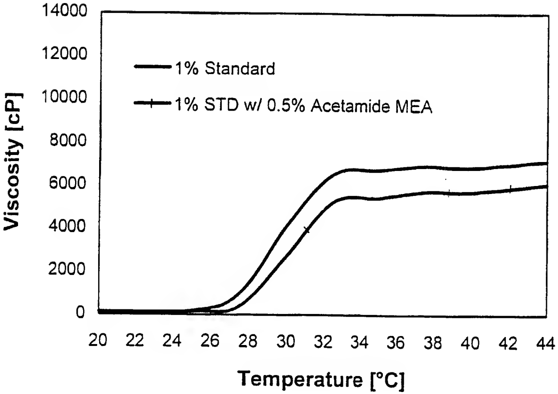

14000
12000
10000
8000
6000
4000
2000
0
Viscosity [cP]
1% Standard
1% STD w/ 0.5% Acetamide MEA
20 22 24 26 28 30 32 34 36 38 40 42 44
Temperature [°C]

Figure 7

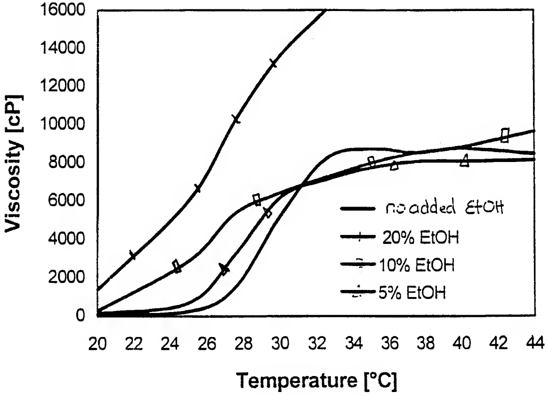

16000
14000
12000
10000
8000
6000
4000
2000
0
20 22 24 26 28 30 32 34 36 38 40 42 44
Viscosity [cP]
Temperature [°C]
no added EtOH
20% EtOH
10% EtOH
5% EtOH

Figure 8

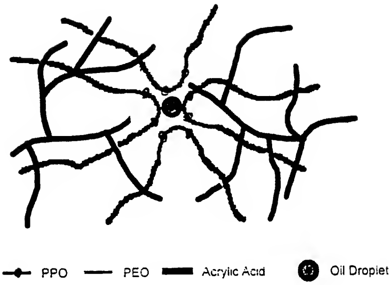


Figure 9

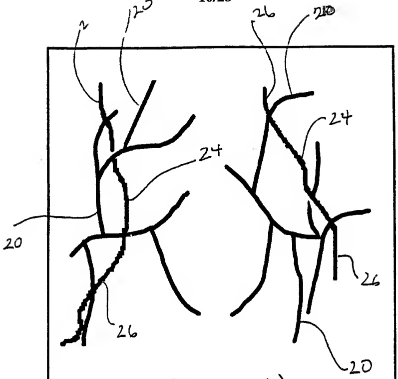


Figure 10 (a)

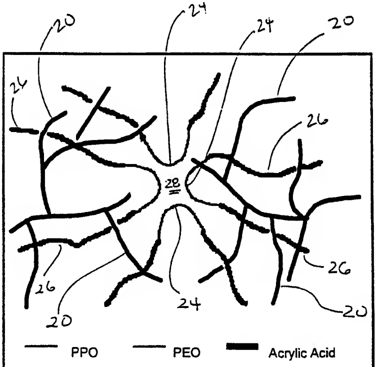


Figure 10(b)

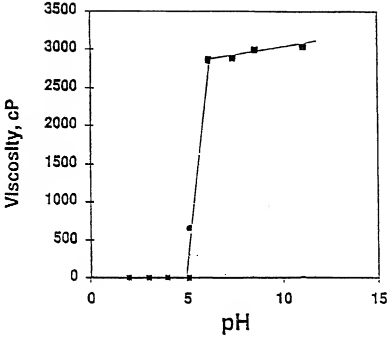


Figure 11

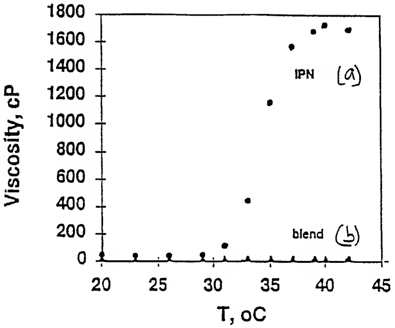

1800
1600
1400
1200
1000
800
600
400
200
0
Viscosity, cP
20
25
30
35
40
45
T, oC
IPN (a)
blend (b)

Figure 12

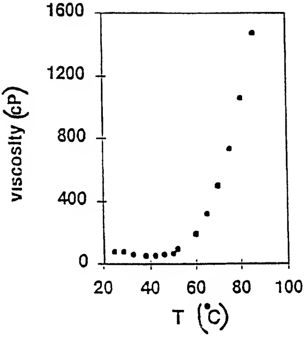


Figure 13

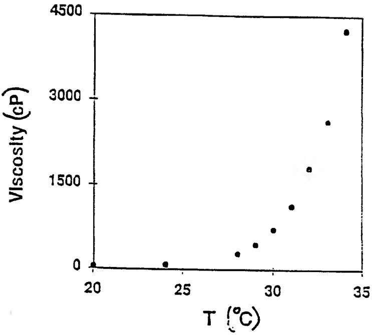


Figure 14

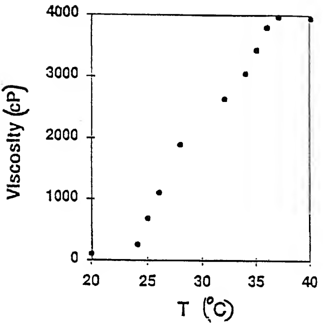


Figure 15

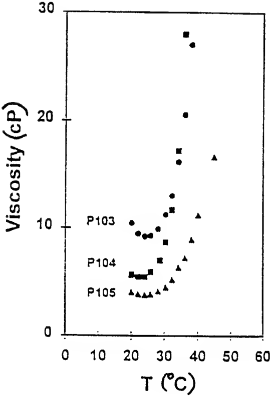


Figure 16

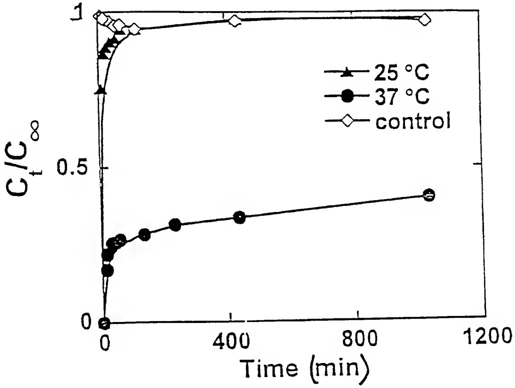


Figure 17

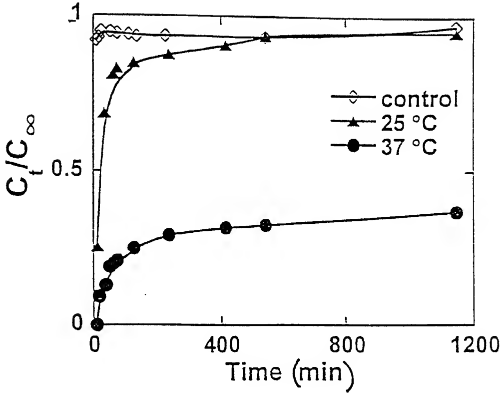


Figure 18

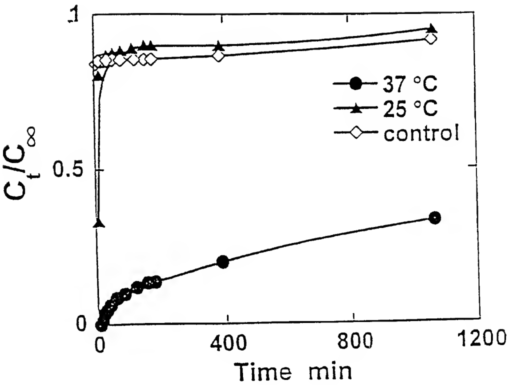


Figure 19

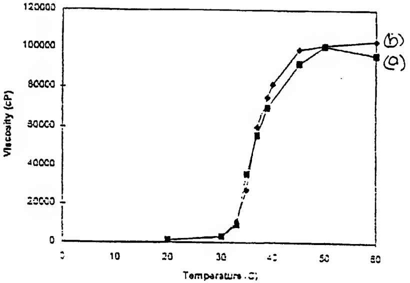

120000
100000
80000
60000
40000
20000
0
Viscosity (cP)
10
20
30
50
60
Temperature (C)
(b)
(a)

Figure 20

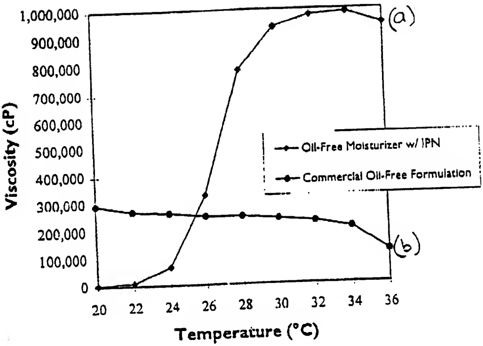

1,000,000
900,000
800,000
700,000
600,000
500,000
400,000
300,000
200,000
100,000
0
Viscosity (cP)
20
22
24
26
28
30
32
34
36
Temperature (°C)
(a)
(b)
Oil-Free Moisturizer w/ IPN
Commercial Oil-Free Formulation

Figure 21

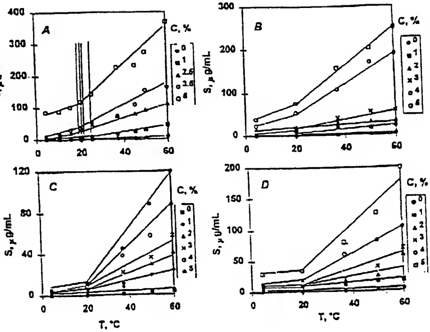

A
B
C
D
C, %
S, μg/mL
T, °C
0
1
2.5
3.5
5
2
3
4
400
300
200
100
120
80
40
150
50
0
20
40
60

Figure22

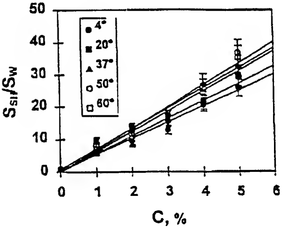


Figure 23

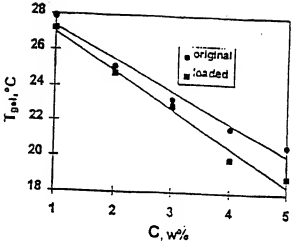
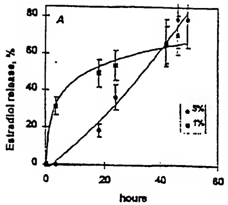
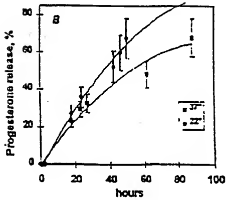


Figure 24


A
Estradiol release, %
hours
5%
1%
0
20
40
60
80
0
20
40
60
80

a


B
Progesterone release, %
hours
0
20
40
60
80
0
20
40
60
80
100

b

Figure 25

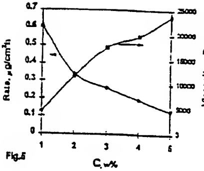


Fig.5

Figure 26

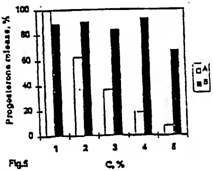


Fig.5

Figure 27

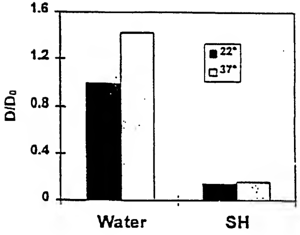


Figure 28

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US98/08931

A. CLASSIFICATION OF SUBJECT MATTER

IPC(6) :A61K 7/00, 7/021, 7/025, 7/06, 7/09, 7/16, 7/32, 7/42, 31/74
US CL :Please See Extra Sheet.
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 424/49, 59, 63, 64, 65, 70.1, 70.2, 70.7, 78.02, 70.08, 400, 401, 405

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

NONE

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

APS: COSMETIC, POLYACRYLIC ACID, POLYMER NETWORK, POLOXAMER

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A, P	US 5,662,892 A (BOLICH, JR. et al.) 02 September 1997, see entire document.	1-38
Y	US 5,106,609 A (BOLICH, JR et al.) 21 April 1992, see entire document.	1-38

☐ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

03 AUGUST 1998

Date of mailing of the international search report

02 OCT 1998

Name and mailing address of the ISA/US
Commissioner of Patents and Trademarks
Box PCT
Washington, D.C. 20231
Facsimile No. (703) 305-3230

Authorized officer

SHELLEY A. DODSON

JAB for

Telephone No. (703) 308-1235

Form PCT/ISA/210 (second sheet)(July 1992)★

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US98/08931

A. CLASSIFICATION OF SUBJECT MATTER:
US CL : 424/49. 59, 63, 64, 65, 70.1, 70.2. 70.7, 78.02, 70.08, 400, 401, 405